DOCUMENT RESUME

ED 218 184 SO 014 119

AUTHOR	Nappi, Andrew T., Ed.; Suglia, Anthony F., Ed.
TITLE	Economic Education Experiences of Enterprising Teachers. Volume 19. A Report Developed from the 1980-81 Entries in the International Paper Company Foundation Awards Program for the Teaching of Economics.
INSTITUTION	Joint Council on Economic Education, New York, N.Y.
SPONS AGENCY	International Paper Company Foundation, New York, N.Y.
REPORT NO	JCEE-318
PUB DATE	82
NOTE	138p.; For a related document, see ED 144 860, ED 159 087, ED 173 252 and ED 187 620.
AVAILABLE FROM	Joint Council on Economic Education, 1212 Avenue of the Americas, New York, NY 10036 ($2.25).
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Business; Community Study; Computer Assisted Instruction; *Economics Education; Elementary Secondary Education; Energy; Field Trips; Fundamental Concepts; Learning Activities; Mental Retardation; Skill Development; *Teacher Developed Materials; *Teaching Methods

ABSTRACT

Twenty-five award winning teacher developed projects and courses in economics are described. The projects are designed for use in primary, intermediate, junior high, and senior high schools. Descriptions indicate grade level, project background, time allotment, objectives, activities, and evaluation. The publication consists of five chapters. Chapter I suggests ways to teach economic concepts in grades K-3. Projects include a year long unit for teaching children to become more efficient energy consumers, an "Economics Open House" for parents sponsored by a third-grade class and fifth-grade remedial reading students, and a "Kentucky Kinder Crafts" business in which kindergarten children used local resources to produce unique items to sell. Chapter II for grades 4-6 includes projects which focus on computer assisted instruction, the construction of a miniature town, and a study of the recent Cuban refugee situation. Chapter three describes a course which uses social studies skills lessons to teach economic concepts and analysis; an economic project for educable mentally handicapped students; and a 6-week seminar on simplified modeling of a free-enterprise system. Chapter four, projects for senior high school students, includes a description of how a field trip to Old Sturbridge Village brought economic concepts to life, presents a method for teaching students to analyze economic proposals critically, and looks at how high school students in a first-year accounting class learned about economics by studying a local cheese making business. The concluding chapter describes projects that fit into what is called an "Open Category." For example, how the Minnesota community studies curriculum teaches economics is described. (RM)

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ECONOMIC EDUCATION EXPERIENCES OF ENTERPRISING TEACHERS

Edited by Andrew T. Nappi and Anthony F. Suglia

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**A report developed by the
Joint Council on Economic Education
From the 1980-81 entries in
The International Paper Company Foundation
Awards Program for the Teaching of Economics**

JCEE CHECKLIST NO. 318

VOLUME

19

TO OUR READERS

The accounts published in this book are condensed versions of the original projects. Copies of the complete reports can be obtained from:

National Depository for Economic Education Awards
Milner Library 184
Illinois State University
Normal, Illinois 61761

This volume of award-winning lessons has been exempted from review by the Publications Committee of the Joint Council on Economic Education because a panel of educators has judged the contents.

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1212 Avenue of the Americas
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Foreword

It is with considerable pride that the Joint Council on Economic Education publishes Volume 19 in the *Economic Education Experiences of Enterprising Teachers* series. We say this for several reasons. Its contents serve to reaffirm our belief that outstanding educational programs in economics are being presented in the schools of the United States. We are always greatly impressed by the innovativeness and creativity of the dedicated educators who deliver effective economic education in the nation's classrooms. Their projects, which are abstracted in this volume, are in many instances the result of considerable outlays of personal effort, time, and money. Few of the units described in Volume 19 were funded by boards of education, the private sector, or the community-at-large.

We are also pleased because economic education appears to be on the frontier of educational efforts. Emphasis on decision making and problem solving is greater than ever before. Some educators advocate complete curriculum changes that will focus on such abilities and skills; others propose that specially designed courses be added to the curriculum. In this context, it is fitting to reiterate the statement made by the Joint Council in 1977 when it began its *Master Curriculum Guide in Economics for the Nation's Schools:*

> Our purpose is to help develop in young people, by the time they graduate from high school, an ability to understand and make reasoned judgments about major economic questions facing society and themselves as members of that society. Only in this way can they be responsible citizens and effective decision-makers.

It is a happy fact that the economic education efforts of the Joint Council have made considerable progress in achieving the aforementioned goals. It is also gratifying that the entries submitted in the National Awards Program for the Teaching of Economics demonstrate the endeavor of teachers to help students develop the necessary skills for rational decision making and problem solving. Several examples are included in this publication. There appears little doubt that key goals of economic education are being addressed.

In this, the nineteenth year of the awards, a new competitive level, the "Open" category, has been initiated (see Chapter Five). It is designed to encourage school administrators, curriculum coordinators, guidance counselors, librarians, and supervisors in particular subjects to increase their participation in the economic education effort. Chapter Five includes descriptions of how an entire school is involved in economic education—all the students and all the teachers. Other important submissions in the Open category described how high school students teach units in economics to students in elementary school. The decision to add this new category of competition was extremely fruitful.

Finally, we are pleased to report that there were more entries in the nineteenth Annual Program than in any previous one. The 50 percent increase seems to reflect two developments: (1) state mandates requiring education in economics as well as the independent growth of offerings in economics education, and (2) growing interest, involvement, and support from the private sector in respect to economic education in the schools.

With the increased interest in economic education and the National Awards Program, there has occurred a corresponding increase in the level of excellence in the competition. To all the educators who submitted projects, we extend our gratitude and appreciation. To the 81 who won awards, we extend our congratulations and compliments on their achievements. The number of entries in each category and the quality of the vast majority made the competition exceedingly keen.

The Joint Council is most fortunate to be able to conduct the National Awards Program. The funding support by the International Paper Company Foundation enables us to extend the competition throughout the nation. We are grateful for the foundation's interest in economic education and its commitment to it, and offer our special thanks and appreciation to its vice president, Sandra L. Kuntz.

A distinguished panel of judges evaluates the entries and determines the awards. Many of the judges have had a long association with the Joint Council. Our special thanks for carrying this most challenging and important task for the nineteenth program go to George G. Dawson, professor of economics and director of the Center for Economic Education, Empire State College (SUNY); George L. Fersh, regional representative, Joint Council on Economic Education; Myron L. Joseph, former professor of economics, Graduate School of Industrial Administration, Carnegie-Mellon University; Delmas F. Miller, executive director, West Virginia Secondary School Principals Association; Andrew T. Nappi, Dean, College of Business, Illinois State University; Rodney Tillman, professor of education, George Washington University; Henry H. Villard, professor emeritus and former chairman, Department of Economics, the City University of New York; Dorothy C. Wass, consultant in elementary economics education; and Philmore Wass, former chairman, Department of Foundations and Curriculum, School of Education, University of Connecticut.

The editorial work involved in preparing this publication is extremely challenging. The long-time involvement and deep commitment of Andrew T. Nappi, Dean, College of Business, Illinois State University, always assures a first-rate publication. We are most appreciative of his services.

Several Joint Council staff members deserve special mention and appreciation for their efforts. Michael A. MacDowell, President, was always available to offer suggestions and insights; Robert A. Greczek, Assistant in the Affiliated Councils and Centers Division, handled most of the logistical details; and Cynthia Phillips, the division's secretary, did most of the clerical and record-keeping work and much of the related correspondence, and she also assumed all of the typing responsibilities.

The nineteenth Annual National Awards Program for the Teaching of Economics was another highly successful effort. We say "thank you" to all of the many individuals who entered and who helped.

Anthony F. Suglia
Director, Affiliated Councils and Centers Division
Coordinator, National Awards Program for the Teaching of Economics

Editor's Introduction

As I reviewed the award-winning projects summarized in this publication, I was impressed with the innovative and creative ideas, methods, materials, and strategies employed by elementary and secondary teachers to develop student understanding of economics. Even more important, I was delighted to see the variety of approaches and practices the teachers used to improve student reasoning about economic problems and issues. I was also encouraged to find that a growing number of teachers are presenting economic concepts in a self-contained unit or are incorporating them in the total curriculum.

The quality of the 1980-81 entries is high. Indeed, there is little doubt that the teaching experiences summarized from this year's competition will help the continuing improvement of economic education. We can certainly anticipate that in next year's program teachers will provide many new examples of how to enhance the effectiveness of economics instruction. I hope that the selection of teacher efforts published here will encourage other teachers who are not presently involved in the economic education movement to formulate and submit descriptions of their classroom experiences.

The reports published in this book are condensed versions of the original projects, some of which cannot be presented or even summarized easily. The attempt in Volume 19—as in its predecessors—is to provide brief descriptions of the winning entries which capture the essence of the teaching projects. I am confident that teachers who contemplate submitting an entry to the Awards Program, and those who have submitted projects but failed to win, will be helped by the following summary of the characteristics of the winning entries.

1. *The project should include a succinct statement of the goals or learning objectives, both cognitive and affective.* The list of objectives need not be long; it should, rather, be clearly articulated and related to the instructional program. Statements of objectives help the judges gauge the worth and effectiveness of the entry.

2. *The judges should be able to discern how each unit, lesson, method, or activity in the project helps to develop economic concepts and generalizations.* That does not mean that mathematical, writing, reading, or other skills are not important, but simply that awards must go to entrants who focus on the teaching and learning of economics.

3. *The procedures and sequence of activities should be well-organized and clearly described.* This portion of a report should emphasize the materials, time schedule, introductory procedures, assignments, activities or strategies, and the review process.

Motivational technique must be spelled out and instructional activities described in detail. How did the teacher get the pupils interested in the ideas to be taught? How was the lesson, unit, course, or subject begun? The duration of the project should be given at the beginning: a year, a semester, a few weeks, a single lesson, or whatever. If less than a full course, the author should describe how the project fitted into the curriculum being taught and how it was related to the preceding or following material.

4. *Winning entries should clearly describe the instructional environment and class situation.* The judges want to know the ages, ability levels, or special characteristics of the students. If the project was developed for a particular socioeconomic or ethnic group, the judges must be informed.

5. *A precise account of the teaching techniques used should be given.* The basic purpose of the Awards Program is to help other teachers, and that can be achieved only if the author gives a detailed account of the methods employed. For example, it is not enough simply to say that a resource speaker was used—the reader should be told exactly how the speaker presented economic ideas, what follow-up activities were conducted, how these activities fitted into the total project, how the endeavor was evaluated, and so on. Where appropriate, sample lesson plans should be included, along with assignment sheets, instructions passed out to students, and the like. Complete details about the personnel and material used should be included in the report.

6. *The project should show originality.* It ought to be more than a rehash of someone else's work. At the least, it should give an entirely "new twist" to an idea developed in a previous year. Ideas that captured awards in years past tend to become old hat; while such ideas may still be good, the awards must go to those who develop fresh ideas for teaching economics.

7. *Photographs or samples should be included in lieu of student work, bulletin board arrangements, table displays, murals, and other items that cannot be shipped.* It is not necessary to submit large or bulky material if a photograph will suffice. Neither is it necessary to send in everything the students have done. A few examples—one or two typical term papers, for instance—will do.

8. *The procedure for the project should be explained in terms of the three basic constituents of every good teaching unit.* The first helps to get the pupils interested in the unit, project, or lesson; the second develops the ideas, concepts, skills, and attitudes that are the goals of the activity; the third brings the activity to a close by summarizing and applying what was taught. Plays, assembly programs, displays, field trips, the making of filmstrips, simulations, and many other devices can be used to help conclude a unit.

9. *Evaluation techniques should always be submitted.* These generally include tests of various types (e.g., short-answer, essay, performance) but can also include less formal methods, such as self-evaluations by individuals, groups, or the class; written or oral evaluations by outsiders; and observations of pupil behavior. The testing instruments along with the results should be submitted with the entries.

10. Finally, *entrants should pay attention to the requirements set forth in the Awards Program application form, arrange the material in an orderly fashion, and help the judges by presenting their entries as neatly as possible.*

An educator whose submission has the ten characteristics listed above will have a good chance of winning. It should be noted, however, that the competition is keen, and that each year it becomes more difficult to win than the year before. Prospective entrants would be well advised to seek outside comments and criticisms before submitting their projects. In particular, a teacher with little formal training in economics should consult an economist about the accuracy and appropriateness of the economics used. Many projects represent an enormous expenditure of time and effort and contain superb ideas and materials for teaching, but nevertheless fail to capture an award because they contain little or no economics or because the economic content is inaccurate.

It might be well for a contestant to review the suggestions below prior to preparing an application. Almost any logical and descriptive outline will serve as a guide for writing the narrative section of the project. The important thing is to work from an outline.

1. *Introduction.* Introduce the judges to what is to follow and thereby set the stage, so to speak, for the project description. The introduction should be brief and should also describe the general purpose of the project.

2. *Background Information.* Give the reviewers an understanding of the following points: purpose and philosophy of the curriculum for which the project was developed; location and physical facilities of the school in which the entrant teaches; background and capability of the students; brief history of the project and other information that may help the judges determine the teachability of the project.

3. *Overall Goals and Specific Objectives.* Whereas the overall goals of the project can be given in a generalized narrative form, the instructional objectives should be very specific and are usually presented as a list. The overall goals may be thought of as long-ranging results that depend on the achievement of the specific objectives.

4. *Program Description.* Reviewers will want to learn from this section what is to be done, how it is to be done, and who will do it. The procedures should be explained fully and in great detail. It can be a serious mistake to assume that the judges will comprehend the details of what, to the applicant, is a well-understood economic concept or instructional technique. The teacher should assume the judges know nothing whatever about what is being presented in the project. The sequential steps of the procedure should be logically arrayed and lengthy digressions avoided—no matter how interesting such digressions may be to the writer. Conciseness leads to clarity.

5. *Program Evaluation.* The reviewers will be helped by objective evidence of what was accomplished in the project. Some systematic objective evidence of the extent to which the instructional aims were achieved must therefore be provided, and it must be described in the narrative. For this reason, the application should include a section on how student achievement was evaluated.

The editor hopes that this summary of what constitutes a good project entry will be useful to educators. He deeply appreciates the work of those teachers (nonwinners as well as winners) who are contributing to greater understanding of economics in our society. He also hopes that increasing numbers of teachers will enter the Awards Program in the future, thereby sharing their knowledge and experience with others as well as possibly receiving a financial reward.

The editor acknowledges with sincere thanks the cooperation of the teachers whose ideas appear in this volume. They have been most gracious in permitting us to use their material as well as being patient and understanding in agreeing to our editorial revisions.

Andrew T. Nappi
Illinois State University

CHAPTER ONE

Energy Efficient Economics

An Economics Study for First- and Second-Graders

Judy Silverman and Nancy Lamp
Mason Elementary School, Akron, Ohio

Introduction and Overview

Mason is an inner-city school located in downtown Akron, Ohio. Most of the 650 pupils enrolled in grades K-6 are from low-income, single-parent homes. Sixty-two first- and second-grade students were involved in this project, and none of them had any previous background in economics. Only a few students had some knowledge about energy and the energy crisis facing our nation and the world today.

Our project focused on the relationships between energy conservation and saving money income. The overall purpose of the year-long unit was to make the children aware of the energy problem and develop skills in rational decision making. There seemed to be a real need to help our students learn to become energy efficient consumers and to take the knowledge and skills home to their parents. Throughout the study, the children were provided opportunities to learn how to become more efficient energy consumers.

Key Concepts and Generalizations

Throughout their involvement in all phases of the project, students discussed key economic concepts and generalizations which helped develop their reasoning ability in making decisions concerning energy conservation. Among them were the following:

- Scarcity—The central problem of economics focuses on unlimited wants and limited resources.
- Opportunity cost—The next best alternative foregone in making a choice.
- Wants—Things that we would like to have.
- Goods and services—Goods are tangible things; services are actions performed for us by others.
- Producers and consumers—In a market economy producers are people who

provide goods or services in exchange for wages, rent, or profit. Consumers exchange income for goods and services to satisfy their unlimited wants.

- Supply and demand—Supply is the quantity of goods or services that producers offer for sale at various prices at a given time. Demand is the quantity of goods or services people are willing and able to buy at different prices at a given time.
- Interdependence—Because of division of labor and of specialization, people depend upon one another to satisfy their economic wants.

Learning Goals

Each concept and generalization was developed in class discussion and integrated within the total curriculum—math, social studies, science, art, and music. We formulated the following goals to develop the students' economic understanding:

1. To provide a foundation for developing life-long consumer economic skills and practices;
2. To encourage children to share their economic knowledge and skills with their parents;
3. To relate the study of economics and the energy problem to the children's everyday lives;
4. To help students develop a deeper understanding of basic economic concepts and principles;
5. To increase the children's awareness of the energy crisis and the importance of energy conservation.

The project was designed to be integrated into the total curriculum and to utilize a variety of learning activities. An overview of the entire program is summarized in Table 1.

Teaching Activities

We used the following teaching procedures and related student activities to help the children understand the economic concepts related to energy. All the learning activities were designed to be open-ended and to generate maximum student discussion.

Activity 1. To help students see the purpose of this project, we discussed in detail the concept of scarcity. We told the pupils that they would be working on a project to earn money for our school. The energy problem was briefly explained, and the children made posters depicting scarcity in relation to their own personal, never-ending wants for goods and services.

Activity 2. To help students understand the concepts dealing with unlimited wants and limited resources, a number of games and role-playing exercises as well as pictures from magazines and newspapers were used to stimulate discussion.

TABLE 1. OVERVIEW OF THE PROJECT

Subject	Activities	Concepts
Math	Working with money, computing earnings and savings, and estimating energy bills	money, opportunity cost, profit, saving, and energy
Language Arts	Letter writing, developing an economics and energy vocabulary, and putting on a play	interdependence, scarcity, market, and specialization
Science	Learning about many forms of energy and how they work, making experiments, and researching dinosaurs as our source of fossil fuels	sources of energy, supply, demand, price, producers and consumers
Art	Making posters for every classroom in the school; bulletin boards, collages, kites with energy messages, and projects from recycled products	energy conservation, advertising, and market survey
Music Careers	Writing energy lyrics, studying jobs that provide services and jobs related to the energy field; learning about careers by listening to speakers and taking part in field trips	jobs, income, salary, wages, occupations, profit, interest, and rent

Activity 3. The concept of opportunity cost was explained in relation to decision making. It was somewhat difficult for the children to evaluate their own choices at first, but they soon caught on to the idea and enjoyed making smiling or frowning faces as a way of expressing their personal values and goals. This activity helped them to see that every decision they made entailed an opportunity cost.

Activity 4. Students were asked to make a list of their economic wants and to choose the things they wanted most. After they made their choices, students drew pictures and explained the reasons for their decisions to the class. Two films, *Jobs in the City—Services* and *The Policeman*, were shown and discussed to help students see people performing a variety of useful jobs.

Activity 5. Students were asked to draw pictures of themselves as producers and consumers of goods and services. This showed them that the differences between what they wanted and what they actually could obtain with their limited money income were in some ways determined by the type of job they held.

Activity 6. To help children understand the concepts dealing with money and barter, the class held a Swap Day, in which students traded such items as toys, games, records, and puzzles with their friends. This activity incorporated the use of overhead transparencies, work sheets, stories, games, audiovisual materials, and discussions in order to reinforce the understanding of basic concepts.

Activity 7. To help students understand the economics of the energy problem facing our nation today, we explained the meaning of energy and discussed such energy sources as oil, gasoline, coal, water, electricity, wind, natural gas, and solar energy. The film *Easy Energy* showed the children the importance of energy conservation. Then, the entire class visited our school's furnace room to learn more about energy and conservation. When we returned to the classroom, the children listed the different kinds of energy sources found in our community and prepared charts to explain how coal, oil, and natural gas, were formed in the earth, and how each of these fossil fuels is extracted, transported, and used at home and in businesses.

Activity 8. The class held an auction to learn more about the concepts of demand and supply and gain a better understanding of how price is established in the market economy. Among the items auctioned were baseball cards, felt-tip pens, erasers, bubble gum, note pads, matchbox cars, and pencils. Following the auction, the children were asked to explain why some items cost more than others.

Activity 9. The children listed things that could be done at home to conserve energy. In the process, the pupils discussed a number of key economic concepts in addition to learning how to be energy savers. The activity incorporated crossword puzzles, work sheets, word games, and discussions to develop skills in decision making.

Activity 10. Students wrote thank-you letters to resource people who had visited the class during the year-long study. Their letters mentioned the ideas emphasized in the speaker's presentation which they felt were important. This helped to develop their writing skills as well as their grasp of economic concepts.

Activity 11. The class visited a McDonald's restaurant to learn more about energy conservation practices. The store manager explained to the children that all of the employees are given special training in ways to save energy in order to reduce operating costs. The children were surprised to hear that the restaurant set the thermostat at 68°F during the winter months and 75°F in the summer.

Activity 12. The class made signs for every classroom to remind students and teachers of four basic energy rules: turn out lights, keep the doors closed, keep shades down, and dress warmly. Our students colored the signs and then delivered them. These reminders were a huge success. Everywhere we went we saw them—in the library, the gym, the office.

Activity 13. We thought of another method of reminding our fellow students about energy conservation—energy kites with messages on the tails. These turned out to be very bright and colorful. We hung them in the hall so that everyone could see them. We also put some in our own rooms. After the kites had been up for a while, the children took them home as family reminders.

Activity 14. Our biggest undertaking throughout this entire project was a videotape. What a challenge that was! We wrote the script, using some of the children's ideas. It took three weeks of hard work on everybody's part to complete this project. Our videotape was a great learning experience for the children because they found out why it is so necessary to conserve energy.

After writing the script, we had tryouts for the major roles. Our main characters were Walda Klondike (a newscaster), Captain Energy, and four brothers and sisters. The children made almost all of the props for us. Captain Energy took the children on a trip into the past to see how people lived long ago. Next, they took a trip into the future to see what might happen if we ran out of energy resources. The children agreed to become energy savers!

Concluding Activity

We decided that the best way to spread the energy message was by sending up helium-filled balloons with a message attached. We had earned close to $50 selling recycled products. The helium cost us $40, so we had enough left to purchase balloons and string.

We sent notes home asking the parents to help us fill the balloons. Several mothers and fathers agreed to help and filled about 700 balloons in just a few hours. They attached an energy message to the string: "Energy savers unite—help America win this fight." The message tag also had information about how to contact our school if a balloon was found.

Balloon Day was held the week before school was out. The children knew this was a big day for our school, and they were excited all day long.

In the afternoon, the principal made an announcement that the balloons were ready. As the classes entered the playground, each child was handed a balloon. When everyone was ready, the 700 balloons were released. It was an overwhelming experience to see the balloons start floating toward the sky. The entire school clapped and cheered as the balloons floated away.

Closing Comment

At the end of this project, it was even more obvious to us that we had chosen an excellent topic. We had no difficulty relating our discussions of energy to scarcity, supply, demand, distribution, market survey, interdependence, and all the other economic concepts we taught.

We were sorry to see the end of the school year, because our project had to draw to a close. We accomplished our goals and learned many things along with the children. We put in long hours and lots of hard work, but it was well worth it.

Economics: A Puzzle—The People Power Solution

An Economics Unit for Third- and Fifth-Grade Students

Glenda Bartlett and Marlene Price
Sequoyah Elementary School, Russellville, Arkansas

Introduction and Objectives

Much of our economic news recently has been gloomy. Lack of understanding of economics compounds people's fears and anxiety.

Our overall goal was to help children understand our economic system. We wanted the students to gain economic knowledge and, therefore, develop a more positive outlook regarding our country's economic future. Some of our specific objectives were:

1. To show students that economics is exciting to study because it affects everyone's daily lives;
2. To help students acquire a background of experience and the vocabulary to help them understand economic concepts;
3. To provide opportunities for students to recognize economics in action—in their homes, school, and community;
4. To help students understand that people make wiser decisions when they have a basic knowledge of economics;
5. To show that positive solutions to economic problems can be found.

We kept our goals very much in focus throughout our economic study in the form of an original theme sone. We sang "It's People Power, U.S.A." (to the tune "This Land Is Your Land"). Our theme song reflected the objectives and goals of our economic study.

Background

How did a third-grade teacher and a remedial-reading teacher get together for a joint economic project? We both realized the value of economic education and shared the aim of providing meaningful learning experiences for children. We wanted to combine our ideas and talents to develop a comprehensive economics project for a third-grade class and a group of fifth-grade remedial-reading students. There were twenty third-graders, the majority with average or higher ability levels. The ten remedial-reading students were below grade level in reading ability. Our main study lasted nine weeks, with one hour per day set aside for the remedial-reading students to work with the third-graders under the direction of both teachers.

The initial preparation for our economic study began in November 1980. The PTEU (*Primary Test of Economic Understanding*) was administered to all students. The students acted as if the test was one of the hardest they had every taken; it might have been, for we discovered they had little experience with economic terms and concepts (mean 13.00, percentile 13).

Learning Activities

Playing the part of newspaper reporters, we questioned the third-grade students about the meaning of economics. Most students did not understand the term, but many said they had heard it on the news or from their parents. The students were very interested in the current presidential campaign and were actively campaigning for their parents' choice of candidates. Many of their parents' opinions were based on economic reasons. As the election approached, the students participated in a mock election. President Reagan's economic platform had influenced many students through their parents, and he won our election.

We displayed economic terms we planned to develop in our project on large puzzle pieces and attached them to the bulletin board. The puzzle pieces were not put together but were mixed up. Individual folders also were prepared for the students' work, the cover contained the puzzle pattern. As terms from the giant puzzle were studied, the students put together the same puzzle on their folders. A puzzle must have a solution, and we were prepared to begin putting it together.

Our preliminary activities with the students, and especially their watching for economic-related news, made them aware of the importance of money in a national and international sense. These questions came up: Where did money come from? Who invented it? We viewed the film *Money*, which provided us with an excellent history. The students learned about bartering, coin usage, and banking. Most of the students were truly fascinated that shells, feathers, and other items had been used in the past as money. Another film, *Economics, The Credit Card*, showed us that money is still evolving.

We had discussions about what we could barter or trade today for things we wanted. Students realized that the value of what they might have to barter would depend on whether a potential trader wanted it. The students drew cartoons and illustrations depicting bartering and the evolution of money, and these were placed on the History of Money bulletin board. Some students also wrote a paragraph on the history of money for their economics folder. We placed the booklet *The Story of Money* in our economics reading center.

Our class discussion of wants began by asking students what the term meant. We compiled a list of wants on the chalkboard. Students contributed the examples, and we wrote down everything they said, including "air," "love," and "being a famous ball player." Then we went through the list to determine which items could be purchased with money.

We used *Weekly Reader* articles to get discussions under way and to develop concepts dealing with money and inflation. The cartoons and articles about high prices and President Reagan's plan to battle inflation provided the stimulus for our study. The students shared some of their parents' concerns about inflation and told personal experiences of how inflation had affected them.

We read aloud an excerpt on inflation from *The Story of Money*, which told about Germany's inflation fifty years ago when the value of its paper money fell so low that currency was cheaper to burn than firewood. We then dramatically talked about the necessity of bringing inflation under control in our country, and as we named specific examples of increased cost we popped a balloon. When the balloons were all popped and the students were wide-eyed and concerned, we talked about the need for people to be educated in economics and how our learning to be informed citizens and make good choices was going to help each of us.

We began an activity on public enterprise by asking the students to name something that their parents really griped about paying. Some students answered "utility bills" but most of them answered "taxes." We then asked, "What do we get in return for our taxes?" Most students said "nothing," and the closest correct answer was from the student who said "insurance."

We viewed the film *Why We Have Taxes—Or The Town Without a Policeman*. The follow-up discussion was very rewarding: students realized that they received very direct and tangible services from taxes their parents paid. We talked with the students about the relationship between lowered taxes and resulting cutbacks in tax-supported programs. We pointed out the work of the U.S. Congress in determining how federal tax monies are spent, and we asked the students to watch for news reports about budget cuts. We introduced the concept of "trade-offs" to help students understand the need for compromises in some spending in order to reduce taxes.

We used role-playing to show the dependency of a child on his family and the interdependence among adult family members. On the chalkboard we listed as many people and businesses we could think of that provided us with the goods and services we could not provide for ourselves—doctors, repairmen, electric companies, etc. The list was extensive. To illustrate the concept of interdependence, we selected a few examples from the list and talked about goods and services the students would have to depend on others to produce.

We also referred back to our activities on bartering, where people traded items they could spare for items others had that they needed. Our governor, Frank White, had just made a trip to the Far East to seek a market for Arkansas products (rice, chicken). Discussion of this news item helped the students understand that world trade is very close to home and has a considerable impact on our state economy.

We involved the parents in our economic study in a very personal way by soliciting their advice on coping with the cost of living. When the students had learned the meanings of terms such as employer, producer, consumer, goods, services, and cost-of-living increases, we prepared a questionnaire called the "People's Economy Poll."

We published the ideas for saving money that parents shared with us through our *People Power Newsletter* at the end of our economic unit. This was another way for us to emphasize the importance of the "people power" solution to our economic puzzle. We provided a great many "people power" inflation-fighting and economizing ideas for the readers of our newsletter. We sent the newsletter home to the parents of our students, to people who had been involved in our study, and to everyone in our school.

Seeing and studying businesses at the city mall gave us an opportunity to "bait the hook" for starting our own business. We wanted the economic concepts we had taught the students to be used in a personal, meaningful experience of the market economy. We had a discussion on possible businesses we might start at our school. Many ideas were mentioned and eliminated by students and/or teachers because of initial cost, labor time involved, or other economic reasons.

Finally, the majority of students decided on something we could sell to everyone in the building—paper hats. Some students were skeptical and said, "That's dumb—no one will want those." Those comments led to a discussion of what sells and why. The importance of advertising and of making a product to meet a want (demand) was discussed relative to the paper hats and other products students might purchase. We decided to sponsor a hat-decorating contest along with our hat sales. The class talked about many ways of decorating the hats to make them unique. We decided to offer prizes for the best decorated hats.

We used division of labor and assembly-line production methods to make the hats. We discovered that "productivity" was flourishing in the People Power Hat Company when the workers produced 130 hats in one 25-minute work period! We had the following specialists on our assembly line: paper sorters, suppliers, folders, tapers, staplers, inspectors, label-makers, and packers. Watching the operations, the students began to appreciate the need for having specialists. The classroom was a beehive of activity as we made the hats, and we were proud of our accomplishment!

The ads placed throughout the building by our advertising workers aroused interest. One student made announcements over the school intercom to publicize our sales. Our sales booth was set up in the cafeteria for two mornings prior to the start of classes. We sold hundreds of hats. Sales dropped off the second morning, but we still had hats in stock. We decided to reduce the price from ten cents to two cents each for the kindergarten classes. Their teachers purchased the hats so as to have another hat activity in addition to the decorating contest. Interested adults and students from the first through fifth grades purchased hats. The excitement increased as these consumers planned how to decorate their hats. The People Power Hat Company closed its booth and carried the filled money box back to the classroom.

People Power had collected $23, from which it deducted $5 for the prizes. All hat company personnel attended a meeting to discuss what to do with the money. One student suggested dividing it up equally. We suggested using the receipts to buy something that would help us all remember our venture into the market economy. After much discussion, the class decided to buy an economics book for the school library with part of the money and to use the balance to buy a treat for each worker. We selected *How to Turn Lemons into Money* by Louise Armstrong; we put a dedication label in it, telling the story of the People Power Hat Company.

Conclusion

One of our most important activities was our Economics Open House, to which we invited parents, school supervisory personnel, and coworkers. The event was held in the evening, because our survey had shown us we had lots of workers in our families.

The students' folders, displays, and bulletin boards were numerous, colorful, and informative. Students guided our visitors through the economics exhibits. We played a tape recording of the students' singing our theme song, "It's People Power, U.S.A.," as background music. Parents were impressed with the quality of the students' work and pleased that their children were learning to understand more about economics. We gave our visitors a handout containing some of Benjamin Franklin's sayings on the economics of the 1700s. The handout posed the question, "Would Benjamin Franklin's ideas on money help you in today's economy?" We asked the parents to use the statement to start a discussion with their children.

The People Power Hat Company had designed, produced, advertised, and sold its entire stock of Field Day Fun Hats. Field Day arrived, and the hats were gloriously, fantastically, and beautifully decorated by eager contestants. Some adults in the building were asked to judge the hats as the children browsed through the RIF (Reading Is Fundamental) book display in the cafeteria. The atmosphere was entirely carefree: students were allowed to choose a free book, gaze at the hats of students from other rooms, and show off their own creations. The judges mingled with the students and other adults and were not identified to the students. The hats were so fantastic, the judges had a difficult task. Creativity was alive and well at Sequoyah!

We published the *People Power Newsletter* as our last report of our economics activities. The students were excited about the official news story of the success of the People Power Hat Company, and they were interested in reading about the results of the People's Economy Poll. Many students recognized that other families were doing some of the same things their own families were doing to cut expenses. They carried the newsletter home on the last day of school, eager to share it with their families.

Evaluation

As teachers, we believe this comprehensive study of economic concepts helped our students feel less fearful about the future of the U.S. economy and more confident of their own abilities to learn and understand.

We know the students learned some economics. We received many comments attesting to the students' enthusiasm and interest. We know the remedial-reading students learned to read better, increased their self-esteem, and gained economic knowledge by being able to participate in this project.

Our students were the envy of the school because of our entrepreneurial adventures! Our economics study had not only touched our homes and school but we knew we had created a more positive attitude toward economic education among many people throughout our community. Yes, people power is the solution to economic education!

Mommy, Buy Me a China Doll

A Kindergarten Economics Project

Mary Wehmeyer
Jeffersontown Elementary School, Louisville, Kentucky

Introduction

Last summer, I discovered a wonderful little book, *Mommy, Buy Me a China Doll*, in an Appalachian book store in Berea, Kentucky. "Mommy, buy me. . . . " Are there any three words used more frequently by our young TV-sales-oriented children of today? Suddenly, I had an exciting idea for an economics study to use with my two kindergarten classes in the fall.

With the economy tightening all around us, inflation running rampant, and all of us caught in the squeeze, most "mommies" and "daddies" are finding it increasingly difficult to buy even strict necessities. What more opportune time than now for every five-year-old to learn about scarcity and the need to make choices!

Could I help my kindergartners understand basic economic principles that affect their daily lives by learning about the poverty-stricken people who settled, and still live, in the Appalachian mountain area of our state of Kentucky? *I could, and we did*! Using a study of Appalachia's natural resources, music, crafts, stories, art, and history, we compared its people's lives to ours today.

The operation of a classroom coal mine and company store taught us that Kentucky is the major coal-producing state in our country. Many basic economic principles were learned here and in the formation of our own business, Kentucky Kinder Crafts. We "became" the people of Appalachia, using local resources to produce unique items that could be sold to the general public and produce income for an economically destitute segment of our society.

Plan of Study

To help five-year-olds learn to think effectively and grasp basic economic generalizations, teachers need to have a well-planned program. It should capture the children's immediate attention, involve them actively in study, and include a wide variety of activities to accommodate differences in learning styles.

Young children learn most effectively through concrete examples and sensory-filled experiences, in which they touch, smell, hear, and see objects at hand. They also achieve understanding by acting out, or role-playing, thoughts, feelings, stories, and poems about concepts or experiences.

Our plan of study included making pictures, posters, bulletin boards, and collages to see what we were learning. We listened to books and newspapers being read. We saw and heard films, filmstrips, and records. We had several resource people work with us in our classroom.

We actually worked in a classroom coal mine, where we saw and smelled the coal dust and felt the fatigue of a miner digging coal. We used resources at hand to produce various products to be sold in our own classroom business.

Enthusiasm reigned high in my two kindergarten classes each day, which included twenty-five students in the morning and another group of twenty-five children in the afternoon. Each child was involved actively and totally in learning experiences that will serve as building blocks to future understanding of our land, our people, and our economy.

Because of the economic near-illiteracy that prevails among Americans today, it was important to involve the parents and families of our students in all our activities. I hoped to motivate them to continue exposing and explaining economic principles to their children in their everyday experiences together.

Goals

As the project took shape, I developed learning activities designed to help my students achieve the following goals:

1. To understand that because income of a household is limited and its wants for goods and services are unlimited, it must choose which goods and services it will buy;
2. To choose wisely in buying because whenever people buy a particular good they must give up some other good;
3. To understand that it takes raw materials (natural resources), people (human resources), and tools (capital) to produce goods and services which satisfy our wants;
4. To learn about the production of coal, the most important natural resource in the economy of our state of Kentucky;
5. To learn that decisions must be made as to what goods and services are to be produced with available resources;
6. To create and operate a classroom business (Kentucky Kinder Crafts Co.), using available resources;
7. To learn that labor income is the main source of income for most households;
8. To involve students and parents in activities designed to develop their critical thinking.

Learning Activities

Thanksgiving and Christmas holidays were behind us, and January seemed the perfect time to introduce a stimulating new study of our neighbors in the Appalachian mountains of Kentucky and to strive for further understanding of basic economic principles, so important in each of our lives.

We began our study with a delightful book, *Mommy, Buy Me a China Doll*, by Harve and Margot Zemach. This is the story of Eliza Lou, a little girl who lives in the mountains. One autumn day she meets a mountain trader pulling a wagon piled high with cloth and kettles and . . . a china doll. Her family doesn't have money for china dolls, but Eliza Lou has that problem solved. She suggests to her mother that they trade her daddy's featherbed for it, but this poses a new problem: Where will her daddy sleep? As she sits on her mother's lap, Eliza Lou suggests alternative sleeping arrangements for the entire family, and their horses, kittens, chickens, and pigs.

The Zemach story is a humorous adaptation of an old mountain folk song. The children were immediately enraptured by the earthy, homespun illustrations of Eliza Lou's fantasies, and were soon singing the little refrain "Mommy, buy me a china doll. Do, Mommy, do!," which recurs throughout the story.

With enthusiasm at a peak, the children were asked to think of reasons why Eliza Lou's family did not have enough money to buy her a china doll. Do some families have less money than other families? Do families have to make choices in what they buy? This led to a discussion of people's economic wants. The children cut out pictures from magazines and catalogs and used scissors and past to make a "We Need" collage.

I told the children that we could understand a lot more about Eliza Lou and her family's wants, if we studied the special area of our own state of Kentucky where they had lived—the Appalachian mountain region. I borrowed an enormous relief map of the United States from an upper-grade classroom, and the children were able to trace with their fingers the path taken by Daniel Boone and other early settlers from the Atlantic coast, through Cumberland Gap, to the hills and hollows of southeastern Kentucky.

What better time than now for my students and their families to learn that Kentucky is the nation's number-one coal-producing state. Coal is the state's largest industry, grossing $3 billion a year. Every edition of our two local daily newspapers, the *Courier-Journal* and the Louisville *Times*, contains articles about the coal industry or coal-related topics. It is said that Kentucky is on the eve of a coal revolution . . . a boom unlike any in its past. The boom has its roots in the beginnings of a worldwide conversion from oil and natural gas to coal.

How could my students begin to better understand this all-important natural resource to the economy of our state? We "constructed" a coal mine in a darkened corner of our classroom. This required many trips to a local coal yard, hauling coal in boxes to my car. A long, draped table was placed in the classroom and became the darkened mine, with coal piled high on top and under it.

The mine was named the Kentucky Kinder Coal Company. A large packing box outside the mine served as the mine shaft. Each child became a coal miner by pulling on overalls, donning a miner's hard hat, and climbing into the conveyor car inside the mine-shaft box. With lantern and flashlight in hand, the children pretended they were descending far underground to the mine entrance. It was amazing how long some children sat in the car in the shaft! They were convinced our mine was very deep down in the mountain.

Each miner's job was to enter the mine and shovel coal into a basket. It was truly dark in the mine, and the child could see only with the light from the flashlight. The miner brought the basket filled with coal out of the mine and took it to the Company Store. Girls and boys alike eagerly awaited their turn to work in the mine. Of course this took several days to accomplish.

As soon as the coal dust settled, and we had closed our mine and cleaned away all traces of its operation, we continued our study of the customs, beliefs, and economy of the people of Appalachia. We had already begun learning a great many folk songs from the mountains. I accompanied their singing with a unique musical instrument, the mountain dulcimer, made by the people in the lonely hills and hollows to entertain themselves.

This led us into a discussion of how few jobs were available to mountain people, other than those in the coal mines and lumber companies. Poverty in Appalachia is notorious. Our old friend Eliza Lou and her family chose to live in the mountains away from crowds of people, where they could have some land all their own and enjoy space all around them. We likened their feelings for independence with those of the Pilgrims who came to the New World.

Over the years, many people have left the mountains to find jobs. However, some mountain people now have found a new source of income. Organizations like the Southern Highland Handicraft Guild have contributed to a renaissance of crafts in the mountains and elsewhere by helping to market handmade products.

Windup

After learning that mountain children are taught crafts, my kindergartners decided it would be fun to open their own craft shop. This was the beginning of Kentucky Kinder Crafts in a large corner of our classroom. In order to be like the Appalachian people, we understood we must use whatever raw materials were available. Parents were informed of our plan, and we received many contributions of fabric scraps. Several mothers came in to work one-to-one with the children on needlework projects.

The children loved every minute of this project! Every girl and boy made either a quilted pillow, a doll bed coverlet, or an animal beanbag. Several children made two items. Even our most immature students, with the poorest hand-eye coordination, worked diligently to sew every stitch and stuff and yarn-tie their little pillows. Children hung through the windows of the little craft shop, eagerly awaiting their turn to sew.

In April, Phyllis George Brown, the wife of the governor of Kentucky, was scheduled to speak to the upper-grade students in our school about a statewide contest she and the governor were sponsoring. Members of her staff arrived early to make arrangements for her appearance. They heard about our Kentucky Kinder Crafts, and immediately asked if Mrs. Brown could visit our classroom after her talk. One of her main interests is promoting Kentucky crafts. (The very next week, she and the governor traveled to New York City to attend the opening of a Kentucky craft shop at Bloomingdale's department store.) Mrs. Brown was extremely interested in the children's work, and the children showed her their handicrafts with pride.

After our month of work, we invited families and friends of the children as well as the first and second grades of our school to attend a mountain folk festival of our own. The children wore "old-time" costumes, sang mountain ballads, and performed line and circle dances in the auditorium of the school. They used puppets to enact an old Appalachian song called "The Black Duck." We had made these puppets as a group project. (The Berea College Puppetry Caravan holds workshops all over the United States during the summer. They give instruction in making marionettes and puppets from resources at hand, such as paper bags, scrap paper, and fabric.)

After our program, the families were invited to attend the grand opening of the Kentucky Kinder Crafts shop in our classroom. Our products included animal beanbags, quilted pillows, doll bed quilts, weavings, corncob animals, clay pots, and candles. We displayed the items attractively and labeled each one with the price and maker's name.

A checkout table with two toy cash registers (in best supermarket style) was at the far end of the room. Two students worked each checkout line. We had studied the various combinations of coins required for the prices of our products. Examples of coin combinations were beside each register to help the cashiers.

Every child was assigned a specific place to work and help customers. Some sold pillows, some beanbags, some candles. We all knew what excellent producers we were, and, at long last, our customers had arrived to buy our products.

The children were fantastic! They took their jobs very seriously, and parents were enthusiastic, helpful, and patient in the long checkout lines. The *Jeffersonian*, another local newspaper, wrote us up and included an eye-catching photograph with the story.

Enthusiasm prevailed throughout our economics study. I was gratified to see the tremendous growth in social development of all the children, especially when working in small groups or running the Company Store, the coal mine, and the craft business. Best of all, their economic understanding was developing: their actions showed that they were learning to think critically about problems, ask questions, and arrive at decisions. Behavioral problems disappeared because the children were stimulated, involved, and busy.

The best method I have found for evaluating kindergarten children is to observe them during their various activities, to ask questions and take note of the answers in small-group and private discussions, and to listen to their conversations with other children. The children's vocabularies increased, and it was exciting to hear many of the children use at least three or four new economic terms in conversations with their peers, showing they had a basic understanding of the concepts we had studied.

Several parents made appreciative comments to me on how much their children had learned in our economic study. One father, a university professor, told me his child not only talked at home about the economic concepts we were learning, but had begun to ask him questions about marketing, distribution, and pricing of products that he was hard pressed to answer at times.

A mother wrote me later, "Leigh is using terms and discussing economic activities that I don't always understand. But I'm learning!"

What greater reward for me than to look around the classroom on the last day of the school year and see stimulated, enthusiastic children, parents, and teachers. We had all worked together, learned together, and found that economics in the classroom can be the most exciting thing happening in education today!

Busy as a Bee in an Economic Community

A First-Grade Economics Project

Gaylene Myra Davis
North Elementary School, Jonesboro, Arkansas

Rationale

Economic education is important because every individual is faced with problems of choice. Each individual has wants. These wants cannot all be satisfied; therefore, youngsters and adults must learn to make intelligent choices. Teachers should help children become aware of available resources and the need to conserve or use them in the best manner possible. Economics can be woven into every phase of the curriculum easily. A basic understanding of economic concepts helps consumers and society as a whole to use their scarce resources efficiently, to examine alternatives, and to seek solutions.

Introduction and Background

I am not an economist, but attendance at three economic education workshops has helped me to realize that economics can be a common element linking curricula. I believe economic analysis is an effective tool to help youngsters develop skills in decision making. First-graders are bursting with natural curiosity and are eager to learn and to take an active part in the world around them. Unquestionably, economic experiences are a part of children's daily life: they shop in supermarkets with their parents, visit the bakery, go to the movies, visit neighborhood stores, listen to commercials on television, make decisions about spending or saving their allowances, and engage in family discussions that deal with economic issues. These activities have little economic meaning for children who lack a basic understanding of economic concepts and practices. The overall purpose of the project was to help children see themselves as active participants in the economic system. I wanted them to have a solid foundation of basic skills and knowledge that they could use throughout their lives.

North School is located in Jonesboro, Arkansas, and is housed in an outdated, overcrowded building. Although economic education is not a required part of the curriculum, nearly all the teachers have developed economics units which can be easily integrated with the social studies curriculum or presented as self-contained programs. Teachers in each grade level frequently meet to exchange ideas and information about their projects. The school has developed a

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ASSEMBLY LINE IN ACTION FOR PRODUCING HONEY SANDWICHES

set of instructional goals in economic education, which serves as a guide to curriculum planning and organization. The curriculum is designed to facilitate the total development of disadvantaged children, particularly those who had been enrolled in the preschool program. More than half of my students come from one-parent households. Most of the parents have not attended high school and cannot read or write; a few are high school dropouts.

Learning Goals

I felt there was a real need to help the children acquire an understanding of some basic economic ideas that affect their daily lives. Some specific goals of the unit were to help students:

- Study and understand the market system;
- Understand that because our economy is complex, specialization is necessary to achieve efficiency;
- Recognize the important factors underlying economic freedom;
- Understand the problem of scarcity and the need to make economic choices;
- Develop an understanding of such economic concepts as money, capital, technology, interdependence, competition, and price;
- Understand the purpose of such economic institutions as banks, government, business, schools, and farms;
- Learn how businesses respond to demand and supply for goods and services;
- Understand the role of government in the economy.

Learning Activities

My classroom was divided into learning centers. The economics area contained numerous books, self-checking tasks, games, audiovisual materials, records, filmstrips, films, worksheets, and other resource aids to teach economic ideas. I used the following teaching strategies and related learning activities to help my students understand the key ideas emphasized in the project.

Activity 1. The children drew pictures of various resources they use to do their work in school. The pictures showed boys and girls using crayons, scissors, glue, pencils, paintbrushes, pens, and tablets, to name just a few. This activity helped the students understand the factors of production and many concepts related to the functions and role of producers and consumers in the economy.

Activity 2. Students were asked to bring to school snapshots of themselves and their families, pets, and friends. This helped them to see that different people have different wants and needs and these often determine our personal goals and values. Stories, word puzzles, and flip charts were used to reinforce the concepts being studied.

Activity 3. I showed the class a picture of a clown holding balloons to stimulate a discussion of economic choice-making. Each balloon depicted an item the pupils used in school, such as crayons, scissors, glue, Kleenex, pencils, desks, chairs, etc. We discussed the price of each item and determined that some products (staplers and scissors) were durable goods and would last a long time; other items, such as glue and pencils, were nondurable goods and would be used up more quickly. This exercise helped the class see that, since our resources were limited, we always had to make choices. The children had little difficulty catching on.

Activity 4. As new economic concepts were introduced and discussed, the children developed their own dictionary of important terms. In their daily writing assignments, they were to use the new concepts and the economic knowledge they had gained. Stories such as "Last One in Is a Rotten Egg" helped to summarize the economic ideas they had learned from our discussion.

Activity 5. The pupils enjoyed playing a game with two plastic containers, one labeled "Goods" and the other "Services." Students examined pictures of producers making various kinds of products and performing useful economic services. Then they took turns deciding which container to place the pictures in, but their selections had to be made within a certain time limit. After making their choices, students explained the reason for their decision to the class.

Activity 6. We toured the school building to introduce ourselves to more economic concepts. Various school personnel visited the class and explained the work they performed, the tools they used, and the special training and skills required to do their jobs. The importance of specialization and division of labor was discussed again, as the children learned how productive tasks were divided among teachers, cafeteria workers, office staff, custodians, bus drivers, and the school librarian to take advantage of each person's unique talents and skills.

Activity 7. I used a number of resource people, including parents, to stimulate class discussion and help the students learn basic economic concepts. Parents were invited to visit the classroom and describe their jobs and career goals and to give children examples of how capital resources and technology help them perform their work. Some of the parents showed them many of the actual tools and equipment they use, and the children were surprised to learn how much money it cost to operate and maintain these resources.

Activity 8. A major emphasis of the project was a unit of animal study. A series of pictures entitled "Busy As a Bee in an Economic Community" were used to explain how bees get the food they need to survive. Working together, we made lists of the goods and services provided by insects and other kinds of animals and placed them on a bulletin board. We discovered that some animals build homes which last a long time while others are constantly moving about and build shelters only to protect their young. We concluded this part of our study with the realization that people and animals were consumers and had a wide variety of wants for goods and services.

Concluding Activity

The highlight of the project was a trip to a bee farm. The beekeeper showed us the hives, described how bees produce honey, and explained how some bees provide a service by caring for the young while guarding the nest. The class observed how technology is used in beekeeping and discovered that only the honeybee has the equipment and know-how to change the nectar of plants into honey on a commercially profitable basis. The children laughed when the beekeeper told them that "no one tells the honeybee what to produce, how to produce, what to consume, or when to work. Bees do their work by instinct." The pupils learned that the worker bees have special organs for producing wax and for collecting nectar and pollen. They were led to understand that bees used their mouths to model wax secreted in their abdomens into perfect hexagon-shaped cells. We concluded that beekeeping had developed into a very specialized science, with considerable economic importance.

We went a step further in discussing what it costs to operate a bee farm. The children learned that special equipment, such as extractors and solar wax melters, is used in the industry. We also saw the special clothing beekeepers wear to protect themselves from bee stings. The children prepared charts to illustrate recently developed equipment (capital goods) and how much money it costs to maintain buildings and supplies in the beekeeping business.

Evaluation

At the beginning of this project a pretest was given to determine the students' knowledge of economics. To evaluate their comprehension and understanding of concepts presented, the same test was given after the concepts were taught. Testing was done many times throughout the year to check the children's progress.

We were very pleased and thankful to have so many people visit our classroom to aid us with our economic activities. Many people helped us with research, classroom activities, and field trips. It was also exciting and rewarding to know that the news media, the KAIT-TV Company, radio, and the Jonesboro *Sun* newspaper were apprising the public of our economic studies. The news coverage was great! The students were able to answer almost any question that our visitors asked. I felt sure that the children had acquired the intended knowledge.

GOOD IDEAS IN BRIEF: PRIMARY LEVEL

OTABEL BRADSHAW of the *Harmony Grove School, Camden, Arkansas*, taught her first-graders economics through a problem-solving approach. To help these young consumers, varied activities emphasizing economic ideas were used in a yearlong study. The pupils explored such concepts as consumption, production, inflation, scarcity, opportunity cost, division of work, wants, resources, and occupations. The study began with a unit on the importance of trees in the local community. Bulletin boards, booklets, posters, stories, and art activities demonstrated the effects of trees on the economy. The children exchanged letters with a first-grade class in Union, Maine. They learned that trees are also a major source of income for many of the families in that area. The state forester visited our class and discussed tree harvesting, energy conservation, and the economic and aesthetic values. In order to help students understand how businesses compete with one another, role-playing exercises were used along with audiovisual materials and discussions. These activities helped children to understand the interrelationships of price, quality, profit, and services. Pupils discovered that in a period of high inflation, the company that charges the lowest prices for a particular good or service attracts the most customers.

THERESA TANNER, a third-grade teacher at the *Hillcrest Elementary School, Jonesboro, Arkansas*, developed a year-long economics unit entitled "We Worked While Our Money Worked." The unit was designed to help students understand the role of money, banking, and financial institutions in the economy and was presented in two phases: (1) How We Made Our Money; and (2) How We Spent Our Money. Major activities of the program were: a fruit-tasting party to reinforce student understanding of natural resources, choice-making, transportation, and marketing strategies; an auction to explain how the forces of demand and supply operate in the market system; an ice-cream social to demonstrate the factors of production; and a nature walk to develop an understanding of scarcity, capital, energy conservation, production, and consumption. Films, filmstrips, pamphlets, stories, games, discussions, and self-evaluations were included in the study. A major emphasis of the project was on helping the pupils discover the purpose of financial institutions and the reasons for the use of money as a medium of exchange. As a result of the unit, students gained a significantly better grasp of how the U.S. market system operates.

MARGARET ISUM of the *Fair Park Primary School, Little Rock, Arkansas*, has developed a variety of activities for teaching some basic economic concepts to students in grades K–3. The project, entitled "Designing and Selling T-Shirts—The Economics of It," was organized to help students understand how businesses operate in the market system. Posters and bulletin boards were prepared to illustrate the importance of specialization and division of labor and develop a better understanding of how the price system allocates scarce resources to the production of goods and services. Students designed and sold T-shirts and acted out their roles as producers and consumers. In the process, the pupils earned money (profit) and used their income to have a party. Films, filmstrips, stories, and posters were used to help the students learn about different jobs and how productive tasks are divided among the workers so as to take advantage of specialization. A story, "Charlie Needs a Cloak," by Tomie De Paola, led to a discussion of productive resources and the problem of scarcity. Evaluation indicated that the children increased their understanding of basic economic concepts and practices.

KATHY TONELLI of the *North Elementary School, Crystal Lake, Illinois*, taught economic ideas to her pupils in a unit entitled "Saving and Spending." As the project unfolded, the children organized their own community in the classroom and acted out their roles as consumers, producers, and citizens. The unit, organized to last the entire year, consisted of five lessons: (1) Earning and Saving Money, (2) Starting a Business, (3) Forming a Partnership, (4) Competition, and (5) Advertising and Selling. The overall goal of the program was to help pupils develop a deeper understanding of basic economic terms such as consumer, producer, goods, money, saving, investment, income, profit, and scarcity. A large poster entitled "William the Worm's Working Wheel" was created to explain the circular flow of goods and services and the purpose and function of money in the economy. A role-playing activity helped the children to understand the relationship between jobs and income and recognize the importance of specialization and division of labor. A set of worksheets and transparencies, keyed to the main lessons, reinforced the economic ideas in this unit. Brainstorming sessions, a play, stories, and games were used extensively throughout the study.

BARBARA SANTANA and SANDRA DAVIS of the *Bay Crest Elementary School, Tampa, Florida*, taught economics to their third-grade students in a unit entitled "Sesame Street Economics." Sesame Street characters were used to introduce children to the fundamental ideas of economic knowledge and stimulate interest and motivation in the study. The year-long project contained twenty-six lessons and was conducted in a daily class period of thirty to sixty minutes. Some of the economic concepts and terms taught during the project were advertising, production, consumption, government, profit, supply, demand, saving, consumer, budgeting, choice-making, and scarcity. The children drew pictures to illustrate their wants and wrote stories to explain how goods and services are produced. The project utilized a variety of teaching methods and learning activities, including learning centers, puzzles, puppets, speakers, films, computer, worksheets, and discussions. As a result of their study, students were able to distinguish between various forms of advertising and explain how businesses respond to supply of and demand for goods and services. The enthusiasm of the class during the activities in the economics project was impressive.

DEBBIE KIMMELL of the *Seiberling Elementary School, Akron, Ohio*, taught economics to her third-grade students by incorporating a variety of techniques—games, stories, and role-playing exercises—in a unit entitled "Gatornomics." The project was organized around the Akron public school system's program "Critter in the Classroom," developed in collaboration with the Akron Zoological Society. The activities in the unit were integrated with lessons on math, art, language arts, science, and social studies taught during the entire school year. The students began the project by studying different animals the zoo loaned to the class. In the process, the class learned about the zoo's "Adopt an Animal" progam, which makes animals available for adoption. Working together, the class decided to adopt an alligator, hence the name "Gatornomics." This experience gave the children the opportunity to observe the animal's living habits. In addition, they learned basic economic concepts such as scarcity, money, wants, consumption, production, goods and services, and budgeting. Weekly evaluation was used to assess student progress.

MARY B. FLOYD of the *Ballman Elementary School, Fort Smith, Arkansas*, taught economics to her third-grade pupils in a study entitled "Economics on the Road," which utilized a problem-solving approach. Some of the economic concepts and terms presented in the project were demand, advertising, competition, free enterprise, opportunity cost, resource extenders, taxes, scarcity, and money. A major objective of the unit was to help the pupils observe at first-hand how production is carried on in a market economy. Among the activities included in the program were an assembly-line simulation designed to reinforce the concepts of division of labor and specialization, a field trip to a McDonald's restaurant to learn more about the role and functions of business in the economy, the writing of a play in which the children acted out their roles as consumers and producers, and visits to the classroom by resource people presenting different occupations. The economic ideas incorporated in this study were continuously reinforced with stories, games, poems, skits, field trips, research reports, films, and bulletin board displays. Other topics taught were the value of money, investing, saving, and government.

PATRICIA A. ROEDER of the *Rose Warren Elementary School, Las Vegas, Nevada*, taught her first-grade students basic economic ideas by using learning centers. The major topics and terms developed in the project were government, opportunity cost, wants, goods and services, consumer, producer, income, money, banking, and scarcity. The film *Choices*, and a variety of games, puzzles, stories, and filmstrips were used to teach key economic concepts and skills. A poem, "Two Little Dragons," by Ivy Eastwich, served to help children act out their roles as consumers and producers. A major activity involved having the class make baked goods for the PTA bake sale. Four assembly lines were set up, and each child had a special job. The children learned about the tools that were to be used and how to care for them. The children enjoyed doing a project that was not only inspiring but also helped the PTA raise funds to purchase audiovisual equipment and resource materials for the school. The pupils developed their critical thinking skills as they applied the tools of analysis to economic decision making.

CHAPTER TWO

A Fourth-Grade Study in the Use of Computers and Their Economic Impact on the World Today

Barbara McKeever
Fairview Elementary School, Fort Smith, Arkansas

Introduction and Goals

This project began with the purchase of a TRS-80 computer. Of course, this was only the beginning of what turned out to be a truly exciting study about the use of computers and the impact of electronic data processing on our everyday lives. To prepare for the unit, I took a course in BASIC programming at a local community college and attended a training workshop on microcomputers.

I was fortunate to have a class of only twenty-one students, so they could use the computer much more frequently than would have been possible with a larger group. Nearly all the students were average or above average in ability and extremely interested in learning about computers. Most of the parents had at least some college education and were also genuinely interested in our economics project.

One of the joys of teaching economics is the opportunity for student participation and discussion as well as the freedom to listen to and exchange all kinds of fascinating ideas. The children never seemed to get enough of this kind of activity. Basically, that's what we did with our study. While I planned to introduce many economic concepts and tie them in with computers as much as possible, I knew that some ideas would be explored in greater depth than others. As the project took shape, we developed learning activities designed to achieve the following objectives:

- To stimulate the children's interest in computers;
- To provide practical experience in the use of a computer for as many curriculum subjects as possible;

- To explore various career opportunities in the computer field;
- To gain some experience in writing a computer program;
- To demonstrate the computer's impact on society;
- To build a background of economic knowledge to use in real-life situations.

Overview

In order to help the students build a strong background in economics, I guided them in developing a glossary of fundamental concepts and principles. I wanted students to write the definitions in their own words because I felt the concepts and ideas would be more easily remembered. They wrote the definitions in their notebooks after viewing filmstrips, listening to guest speakers, taking field trips, watching the *Trade-offs* TV series, and participating in class discussions. Students were given a copy of the glossary, with instructions to study these concepts and their meaning. Each day the class played a vocabulary game to reinforce its knowledge.

Another strategy I used was to set up a resource center in one corner of the classroom so that materials pertaining to the study of economics and the use of computers could be enjoyed by everyone. The children were encouraged to use the materials during their spare time and share information they had acquired with the class.

In order to help the children improve reading skills, I asked them to read newspaper and magazine articles. One way I encouraged them was to give extra credit for articles on computers. Since computers are constantly in the news, it was not difficult for the children to find articles, and they eagerly shared their selections with the class before placing them in their scrapbooks. One purpose of our economics study was to discover how computers were becoming an important part of our daily lives. These articles, as much as anything, helped the children to see the impact computers were having on our society today and would have in the future.

Learning Activities

The concept of scarcity was one of the first economic ideas I developed. I helped the children understand that their economic wants were greater than the productive resources available to satisfy the wants. We viewed the filmstrip *We Are All Consumers* to learn more about the nature of scarcity and the need to make choices.

Now it was appropriate to develop the theory of supply and demand in terms of the market for computers. A resource speaker visited the class and discussed the history of computers and data processing. From this discussion the children began to realize that the early computers were very expensive and quite large compared to the machines available today. As businesses needed to process more and more information, the demand for computers increased. We prepared a bulletin board entitled "Computer Prices Decline" to help explain the rapid advance in computer technology over the years and the relationship between demand for and supply of computers.

Another opportunity arose to further integrate economic concepts with our study of the computer. A newspaper article entitled "Instant Banking Has Dangers" listed the advantages and disadvantages of electronic fund-transfer systems. One disadvantage mentioned was the concern for invasion of privacy—unauthorized access to personal information. The children brought in other articles that stressed problems created by computers. It seemed appropriate at this time to view the film *The Kingdom of Mocha*. The film describes a very primitive society on an imaginary island and shows what happens to the inhabitants as economic developments and technological changes occur. At the conclusion of the film, the students were asked to write reports explaining how the introduction of computers and data processing might alter the island's economy and the lives of the Mochans.

To help the students understand the term "productive resources," I asked the children to think of everything required to manufacture a computer. Many of the activities we had been involved with up to this point helped us to specify the resources required to manufacture computers. The students were already familiar with the terms "natural resources" and "entrepreneurs" from their study of selected units in their social studies textbook. Capital resources took a little more time to explain before the children were able to understand that concept. I emphasized that the computer would be classified as a capital resource. The meaning of the term "human resources" was easy to get across because the students were aware that people are needed to produce goods and services. The class had expressed some concern about the possibility that computers might replace people; this led to a very lively debate on the subject "Are computers helping or hurting our society?"

As preparation for our field trips, I asked the children to keep their lists of resources in mind and to watch for examples of natural, human, and capital goods resources when we toured different businesses. After viewing the filmstrip *Government Goods and Services*, we visited our city's offices to find out how computers are used. We discovered that our city uses computer services provided by a local firm on a time-sharing basis. Information travels to the service company's computers via telephone lines; the company compiles the data into the forms needed by the city offices.

Another field trip was to the local newspaper, where the children observed the heavy reliance on the computer, especially in the advertising department and copy room. However, nowhere was it more apparent that the computer plays an important role in business than at the telephone company. The children quickly noted that the telephone operators' switchboards were computerized. We were then shown the "heart" of the system, with the main computer and its complicated maze of wires and parts. Our tour guide pointed out that we could not have a communications system as we know it today without computers.

Concluding Comment and Evaluation

For me, this was an exciting unit to teach. I knew from experience that I could teach children basic economic concepts. I knew they would enjoy working with the computer and would eventually achieve a minimum level of comprehension about computers. The children far surpassed my expectations in their ability to grasp major economic ideas and principles and to write computer programs. A lot of time, effort, and frustration went into this project, but significant advance in skill, knowledge, and maturity resulted.

Word of what our class was doing spread to other teachers and schools, and I was invited to describe the project to my colleagues at a professional meeting. It had been a successful year in more ways than I imagined. I felt this class had achieved not only a basic awareness of economics but also a good understanding of computers and how they work. As the children talked about the future and their careers, they expressed less apprehension about electronic machines than at the beginning of the year because they had come to understand the impact of computers on the world today.

Evaluation took place in several ways during our study. I was delighted with the results of the post-test scores, which revealed that the children had increased their understanding of basic economics. All students showed excellent progress.

The Wide World of Economics

A Sixth-Grade Economics Study

Jo Ann Lovett
Woods Elementary School, Fort Smith, Arkansas

Introduction

I teach the sixth grade in an open-space elementary school located in an affluent neighborhood on the eastern edge of Fort Smith. The neighborhood is relatively new, with some housing areas still under development. With a few exceptions, the parents are engaged in well-paying professions or occupations. Many of them are connected with business interests in Fort Smith.

The children in my class during the 1980–81 school year were generally very intelligent and eager to learn. They came from homes where education was considered a valuable asset.

Economics has been an integral part of the curriculum of Woods School

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ever since it opened several years ago. Teachers are encouraged to stress basic economic concepts in a variety of ways.

In the past, I usually chose a special topic and conducted a separate unit on economics. There was always some fusion with other social studies, especially history and geography, but this was usually incidental instead of planned.

At the beginning of the 1980–81 school year, I searched for a topic that would interest my students. I usually take one class period to introduce the textbook that we are going to use in a particular subject. As we discussed the sixth-grade social studies text, *Regions of the World*, by Lawrence Senesh, the students began to ask questions such as these:

"Are you going to teach economics to us?"
"Are we going to have to study the textbook all the time?"
"Will we go on any field trips this year?"
"Why can't we have a lot of activities?"

During the next few days, I pondered their questions. It was obvious that my students wanted to study economics and that they wanted an activity approach to learning, rather than a page-by-page study of the textbook.

In our next social studies class I proposed to the students that we use an activity approach in our social studies and that we embark on a year-long economics program. The students were eager to try.

Study Plan

We continued to discuss the approach that we would take in developing the project. After several days of discussion, we settled on the following plan:

1. As we used the social studies text, we would select topics to which economics was applicable;
2. We would begin each topic by taking a field trip or engaging in an appropriate classroom activity;
3. We would make sure that the economic ideas introduced would have some significance in the local setting before applying those ideas to other parts of the world;
4. Our learning activities would entail interviewing people in Fort Smith, taking field trips, inviting resource speakers to the classroom, writing to foreign embassies in Washington to gather information about different countries, and using a wide variety of resource materials.

One student summed up the intent of the study when he remarked, "This is going to be fun! We will be studying worldwide economics!" Eventually our study came to be known as "The Wide World of Economics."

Objectives

The instructional objectives unfolded over a period of three to four weeks. As I reviewed our plan of study and some of the topics in which students were interested, I would jot down possible objectives. We concluded that our goals were:

1. To develop a meaningful approach to a study of economics correlated with the regular sixth-grade social studies program;
2. To use many activities in a variety of ways to enhance student understanding;
3. To learn how productive resources are used around the world;
4. To learn about the economic system of each country studied and how the production of goods and services is carried out;
5. To determine the economic and cultural reasons why people live where they do;
6. To study about the interdependence of people from the different regions of the world and to understand the economic significance of international trade;
7. To explore the energy shortage and its impact on the economy of all nations;
8. To study technological change and its effects on the economic development of different regions of the world.

Learning Activities

Five separate but interrelated learning activities were developed in the project. A brief summary of the activities and economic concepts and principles emphasized in the unit are described below.

Where people live. We discussed why people live in certain geographical areas. We observed that even in regions of extreme temperature, people expended great effort to make their land habitable and to build a viable economy.

After some discussion, the students suggested that we try to find out why people lived in Fort Smith. This would give us a better understanding of why people living in other places could be just as happy as we. To begin, the students wrote essays on "Why I Would Rather Live in Fort Smith than Anywhere Else in the World."

The students' next assignments was to ask their parents why they lived in Fort Smith. I asked the students to sort out those of their parents' explanations that were based on economic considerations. One reason given was the wide availability of jobs—Fort Smith is an industrial and port city. The students also noticed that some parents had mentioned that most people in Fort Smith were hard workers and capable at solving problems. Several parents had commented on the good educational system. So, we concluded people lived in Fort Smith not only for geographical and cultural reasons but because the residents were capable producers of goods and services.

I gave the students a weekend assignment to think about the changes that have taken place in Fort Smith over the past few years—those that have improved the quality of life as well as raised the local standard of living. They were to ask their parents to help them.

That Monday the students returned with many enthusiastic comments. Even though the children felt that the changes their parents had observed were necessary to make Fort Smith a better place to live, they continued to talk about the costs and benefits associated with the changes. I explained that all of us need to realize that nothing of economic value can be produced without using productive resources—human, natural, and capital good—and we sometimes have to make difficult choices or trade-offs.

I divided the class into two groups (giving each student a choice). One group analyzed the costs and the other, the benefits of each change the class had discussed. For example:

Improved Navigation of the Arkansas River

Cost: The federal government financed the river project despite the budget deficit. The project added to the national debt. Not only was government using resources that could have been used for other purposes (opportunity cost) but the federal spending was adding to inflation.

Benefits: Being located on a navigable river helped bring industry to Fort Smith. It is cheaper to ship by water than by other means, especially if the cargo is heavy. The dams control flooding and conserve the soil in the Arkansas River valley. Making the river navigable has created new jobs and increased prosperity in our city.

Following this discussion, I emphasized again that economic considerations play a compelling part in people's decisions about where to live. I reminded the students that people use technology to improve their living conditions and to make life more comfortable for themselves wherever they live. When we studied about other areas, I reminded the class of the economic decisions that people in other regions must make. For example, in studying about Israel, the class learned that the Israelis had used productive resources to build irrigation systems in order to be able to farm some areas of the Negev Desert. I had the children go through their textbook for other examples of economic decisions people around the world had had to make in order to function well in their environment.

We continued to examine some of the ways the people in Fort Smith spent their resources to make life more enjoyable. The children pointed out, for instance, that we used energy to provide heat in the winter and cool air in the summer, all at great expense.

Interdependence and trade around the world. We were also beginning a study in our textbook of British mercantilism. The students were surprised to learn that the main purpose of mercantilist policy had been to increase the amount of gold and silver in the royal treasury. The students also learned that the objective of wars and explorations in earlier times was largely to control trade routes.

Moving on in their study, the students learned about the gradual growth of ideas antithetical to mercantilism. Manufacturers and merchants wanted to be able to buy their resources from the cheapest source and to sell their finished goods and services to anyone who offered the highest price.

At this point, I could see that the students were taking a "textbook" view of trade and did not fully understand its impact. We began to discuss the reasons for foreign trade, and I had the students make several charts to enhance their understanding of the subject.

Following that, the students discussed the desirability of buying foreign-made products when domestic manufacturers were having difficulty staying in business. The students brought up autos as a case in point, and wanted to debate the issue. I divided the class into two groups. Two speakers from each group presented the arguments for and against buying foreign automobiles when our own car manufacturers were losing money and/or had received government loans to prevent bankruptcy. The students were given one week to prepare their arguments.

In an effort to gain more information about the foreign car market in the United States, I took the students to the Norcross Volkswagen and Audi dealership. We learned that Norcross no longer imports Volkswagens because a plant has been built in Pennsylvania. All the parts are imported and assembled in the United States. We also took a field trip to Bekaert Steel Company, in Van Buren. The children learned that the Bekaert family of Belgium owns the company. It is the oldest and largest wire manufacturer in the world. Bekaert chose Van Buren because the location is at the center of the firm's market, finished goods could be conveniently shipped by barge down the Arkansas River, and the area has an abundance of other natural resources as well.

[EDITOR'S NOTE: In addition to the two topics of study described above, the complete report contains a variety of learning activities and teaching strategies for three other units: "Different Economic Systems"; "Black Gold and Its Impact on the Economy of the World"; and "Bringing the World Together Through Modern Technology."]

Concluding Activity

Our concluding activity came about without much prior thought or planning. We had intended to give an assembly program in which the class would share with other intermediate-grade students what it had learned in its year's study of economics. However, the class was not interested in presenting such a program and instead proposed writing "books" to summarize what it had learned. Once interest picked up, every student wanted to write a book, either alone or with a co-author. Once the booklets were completed [the full report contains samples], the students enjoyed sharing their "books" and repeatedly discussing what they had learned during the year.

One booklet, *Economics Around the World*, was typical. It was colorful, well illustrated, and sometimes humorous. It depicted the local dress of different countries, and gave economic facts about them.

Evaluation

Since this study was so much a part of the regular social studies program, I used appreciably the same approach to evaluation that I normally follow in the regular program.

I gave a teacher-made test at the end of each unit in the textbook, making it a point to include several questions on the economic aspects of the activities we had pursued in the project. Keeping our objectives in mind, I usually touched on such topics as productive resources, technology, interdependence, scarcity, and economic systems. The minimum achievement standard for each student was 80 percent on every test. Rarely did a student score below that level.

In addition to the booklets, students wrote numerous papers on assigned topics. I graded the papers and returned them to the students.

Oral reports were graded primarily on economic content. Most students scored extremely well on these reports.

I tried a technique of individual evaluation in which I would engage a student in conversation about what we had studied. I wanted to know if the students could discuss economic ideas intelligently. Over 75 percent of the students scored well.

Another technique I used was to stop the students in the middle of a free reading period by asking, "Do you see any economics in what you are reading?" Immediately hands would go up. They were eager to give me answers, and most students would be on target or close by.

Open-book quizzes were popular with my students. I would say, for instance, "When you read the chapter on energy I want you to answer the questions on the chalkboard. You may use your book." The questions always contained some economic aspects.

Economic spelling bees, choosing up sides for economic games, and other pleasant activities added to the enjoyment of the year's work as well as helping me evaluate the students.

City Planning

An Economics Project for Sixth-Graders

William E. Dalton
Amboy Elementary School, Conneaut, Ohio

Introduction

In this project, a miniature town called Falls Creek was constructed, complete with city services and departments. The duties of various city officials were assumed by pupils, and the activities were designed to mimic the real world as closely as possible and to make lessons about government more appealing. The students handled questions on budgets, taxes, roads, schools, and zoning. Students also elected a council and a mayor. The project was conducted during the period between Christmas and Easter and supplemented the pupils' social studies lesson.

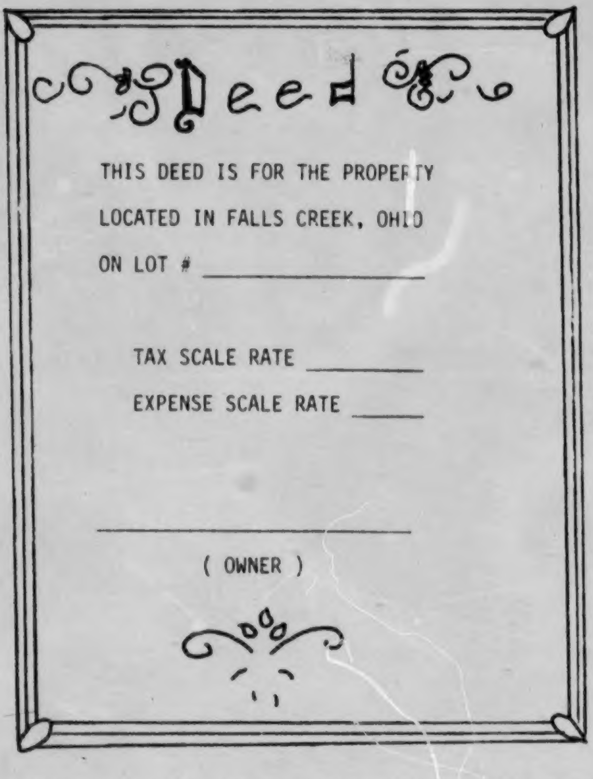
The class really seemed to enjoy the activity. No one became bored with it, and the students learned many important economic concepts and ideas without ever opening a textbook. The model city became the focal point for classroom learning and involved the pupils in firsthand knowledge through role-playing.

Procedures

I created a three-dimensional model city in the classroom by arranging several eight-foot tables side by side. The tables were covered with green construction paper and "decorated" with creeks, trees, roads, houses, and various types of businesses. The model city contained everything that a community might have, including a city dump and power plant. There were a main business district and four distinct residential areas for upper-, middle-, and lower-income socioeconomic groups.

As the project unfolded, the pupils were assigned houses and issued deeds for the property they owned at the outset or later acquired through their own investments (see Exhibit 1). The monetary unit in our model city was called a "point" and used to purchase property and pay taxes in Falls Creek. The pupils who desired to establish their own small businesses could pay cash or borrow needed capital from the bank at market interest rates (see Exhibit 2).

I set aside fifteen minutes every morning to give students the opportunity to engage in business transactions and obtain financial counseling and assistance. The purchase price of an existing business was 500 points. The buyer who decided to purchase a new business or acquire commercial property paid 1000 points. Property and sales taxes were paid once a week, and the



Deed

THIS DEED IS FOR THE PROPERTY
LOCATED IN FALLS CREEK, OHIO
ON LOT # ________________

TAX SCALE RATE __________
EXPENSE SCALE RATE ______

____
(OWNER)

Exhibit 1. A Sample Deed to Property in Falls Creek

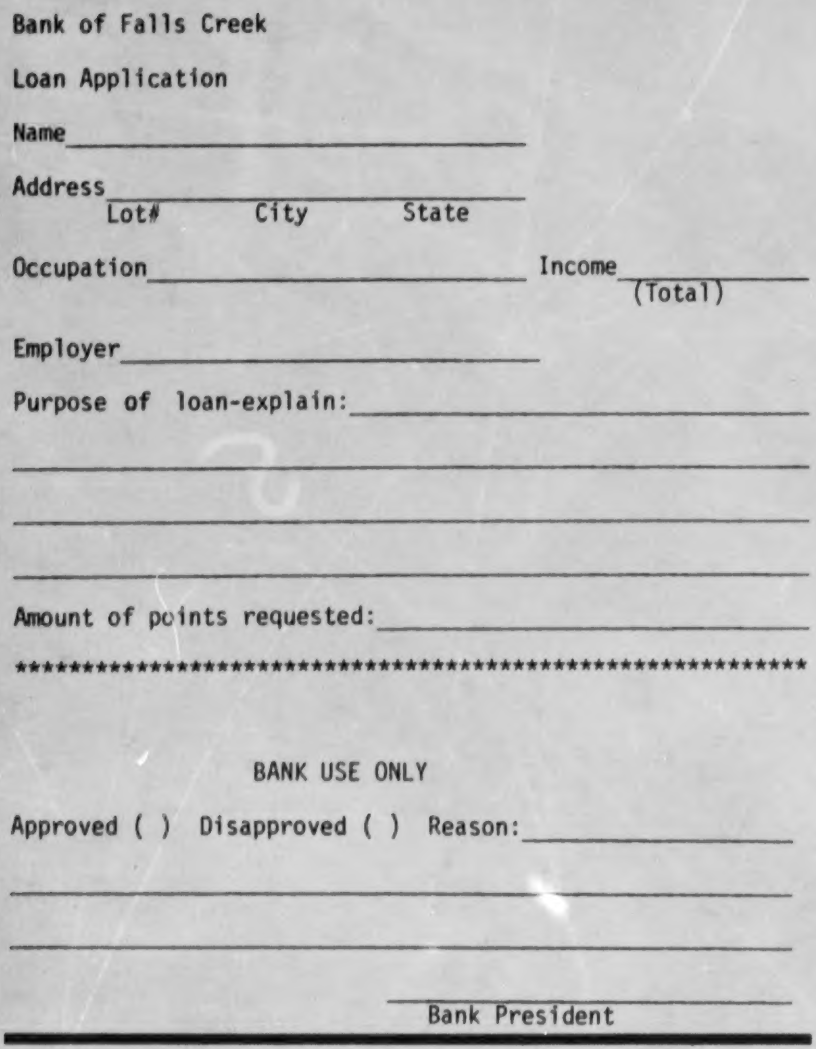
revenue collected was used to provide for city services, including police and fire protection and park and other recreational facilities used by local residents. Each pupil had a role to play, such as property owner, business owner, mayor, city council representative, banker, tax collector, etc. The students earned money income (points) for the work they performed and from their investments in real estate and other financial transactions.

Learning Goals

I formulated the learning goals below to help me measure student achievement

Students will be able to:

1. Understand the importance of transportation within a community;
2. Explain the effects of a new interstate highway on the city's economic growth and development;



Bank of Falls Creek

Loan Application

Name ______________________________

Address ____________________________
Lot# City State

Occupation _________________________ Income ____________ (Total)

Employer ___________________________

Purpose of loan-explain: ______________________________

____

____

____

Amount of points requested: ___________________________

****

BANK USE ONLY

Approved ( ) Disapproved ( ) Reason: ________________

____

____

____
Bank President

Exhibit 2. A Sample Loan Application

3. Give reasons why local, state, and federal taxes are necessary for maintaining public services;
4. List the requirements, skills, and personality traits needed to obtain the job of their choice;
5. Identify and explain the factors that contribute to income distribution and wealth;

6. Give three reasons why a bank has some influence over the economic development and prosperity of a city;
7. Understand the meaning of profit and the effects of inflation on business activity;
8. Develop economic knowledge through personal experience with the economy in action.

Key Concepts

By emphasizing important concepts concerning jobs and income, the project helped develop the pupils' reasoning in making the economic decisions concerned with taxes, zoning problems, city services, and budgets. Among the economic ideas emphasized were wants, profit, income, inflation, production, revenue, sales, specialization, money, opportunity cost, savings, investment, and trade-offs. The students also became acquainted with other basic economic terms such as city services, taxes, transfer payments, zoning laws, unemployment, risk, entrepreneur, salary and wages, redistribution of income, social cost, and private enterprise.

Teaching Activities

I prepared the following case studies to help the students understand the economic concepts involved in developing the city. All the activities were designed to be open ended so as to generate maximum student discussion during the city council meetings.

Case 1. The assignment for the class is to redevelop the city, including facilities, to accommodate a population of 7500 people.

Case 2. An interstate highway will be constructed within the city limits. The class assignment will be to discuss the economic and social changes that will occur in the community as a result of the freeway.

Case 3. The Electric Company has purchased property near the edge of town on which to construct a nuclear plant. The new complex will help the city's economy, but some concern should be given to public safety.

Case 4. A person from out of town has purchased a large farm in the community. A sign on the location reads "City Dump." The town must now decide what to do about the situation.

Case 5. The clothing factory located in town was acquired by a conglomerate. The new board of directors has decided to sell the factory and place its money in more profitable investment. Faced with double-digit unemployment and substantial loss of business, the city must find a way to cope.

Case 6. The school building in town was constructed in 1905. The state Board of Education has decided to condemn the building. The assignment for the class is to fund the replacement of the present building with a modern educational complex.

Each case study was related to economic concepts and generalizations developed in class discussions. For example, the students were very excited about the prospects for economic growth they believed would come about with the advent of the new highway. They felt that travelers would need a place to stay, a place to eat, and, of course, gasoline. For this reason, the students believed that interested investors would be willing to build motels, restaurants, and gas stations to meet the growing demand for services. The pupils also examined the disadvantages associated with the proposed new highway. They cited increased pollution as one possible outcome and proposed several ordinances prohibiting the use of billboards within city limits. The pupils also discussed the need to cope with the anticipated increase in highway traffic and the possibility of installing new stop signs and street lights, which would necessitate additional expenditures by the city.

Supplementary Student Activities

In addition to the case studies, I used the following student activities to reinforce the students' economic understanding.

1. I had the children write an essay about life in Falls Creek in 1881. Some of the papers were excellent, and many were later published in the school newspaper.

2. The children also wrote a report describing a typical day in Falls Creek from the viewpoint of their assumed roles. The children really became involved in this activity. I encouraged the children to read their reports to the class.

3. As an extra project, if the children wanted to purchase a new business or home, I gave them the option of designing their buildings, an activity that gave them the experience of figuring scale and using geometric concepts. The students could then construct their buildings from their plans. You should have seen the McDonald's!

4. Since different types of housing were available to the city, I developed an enrichment activity so that students could study the different housing designs found in America today. The children learned about split-levels, Dutch colonials, and split-foyers, to name just a few.

Evaluation

The major method I used was informal observation. However, at the end of each lesson, the students took written tests. I used both multiple-choice and essay questions. A sample test follows:

TEST 1

1. How does a good transportation system affect the economics of a community?

2. What is a corporation?

3. Do you feel that nuclear power is a good solution to our country's energy needs? Please explain your answer.

4. If we were to hold an election today, what do you feel would be the major issues facing the community?

5. What are the advantages and disadvantages of serving as an elected public official?

Economic Education to Reduce Juvenile Delinquency

A Fifth-Grade Economics Unit

Nancy Braden
Barling Elementary School, Barling, Arkansas

Introduction

My fifth-grade class consisted of thirty students, evenly divided between boys and girls. Their reading ability ranged from second- to fifth-grade level. Nearly one-fourth of the pupils had learning disabilities, and most came from families at the lower end of the socioeconomic scale. Some of the parents had a high school educations but many had not; only a few had graduated from college.

A constant and obvious problem in the elementary classroom is that of students picking up pencils and other items "found" on the floor. I started thinking of ways I might use an everyday problem as a basis for an economics unit. Children were unable to understand why those items were not their own if they found them. A conflict resulted when someone claimed the items being used by those who found them.

I found this self-centered attitude on the playground also. Many times the students were reluctant to share playground equipment, not seeming to realize that it belonged to all of them. I have actually seen students attempt to destroy balls and other equipment rather than share. Teachers constantly had to stop arguments over the equipment, and many times the students met after school to "settle things." They wanted to be winners, not realizing that all of them would be the losers.

This same attitude was seen when children carelessly left textbooks, library books, and notebooks on the playground. When they came to class, they would simply buy or charge a new notebook in the office. They didn't really care about losing the books.

Time, too, seemed to have very little value to most of the students. They rarely made good use of any "extra time."

For several years I have been concerned about situations such as these, and I felt compelled to do something to arrest the problem. I thought that if students were allowed to "get by" with this type of delinquency it would lead to more serious wrongdoing. I didn't think punishment was the complete answer; prevention would be more satisfying. I thought the key to arresting juvenile delinquency is economic education. If students could gain some understanding of our economic system and learn to solve problems in a rational way, they would be less likely to take part in senseless acts that harmed not only others but themselves, too.

Generalizations

Each concept was related to generalizations developed in class discussion. Among the economic ideas and principles stressed in the project were the following:

1. Human, natural, and capital goods resources are necessary in order for production to take place. The entrepreneur must decide how best to use the resources.
2. There are not enough productive resources available to provide all the goods and services everyone wants. Hence, we have the basic economic problem of scarcity.
3. Trade-offs and opportunity costs are involved in making personal choices as well as in making governmental policy decisions. The students should be able to analyze these alternatives rationally.
4. Various sectors of the economy—business, labor, agriculture, consumers, and government—have differing viewpoints. Students need to be aware of these viewpoints in order to have a balanced picture of the economy.
5. Students need to express their personal goals and be aware of national economic goals as well. Theses national goals have been asserted by the people through political and economic decisions. These goals sometime are mutually contradictory.
6. Every society must decide what to produce, how to produce, and for whom to produce. The kind of economic system a society has is determined by the way in which these decisions are made.
7. Specialization and division of labor create interdependence.
8. Crime has a real cost and an opportunity cost.
9. Crime affects both private and public enterprises. We pay for crime as consumers and taxpayers.

Starting Activities

The recent Cuban refugee situation was uppermost in the minds of Barling residents, because the town is located adjacent to Fort Chaffee where refugees were being housed. By the time school started, it had been determined that Fort Chaffee would become the permanent relocation center for the unsponsored Cubans. This announcement upset the local residents because on June 1, 1980, some of the Cubans engaged in an uprising that resulted in a great deal of looting and vandalism at Chaffee and in the Barling area. The local residents were frightened and angry.

At the start of school, my students chattered constantly about the Cuban situation. They were eager to tell me everything that had happened in their neighborhoods during the summer. It was obvious that they needed to talk to relieve the tension. I set aside a time each day for a "rap session." As the students talked and asked questions, I could see that a great many of their concerns were related to economic issues.

We listed the questions that concerned the class the most:

1. Who will pay for the damage caused by the Cubans' vandalism?
2. How will the Cuban criminals be punished?
3. Will the federal government pay for the damage claims filed by civilian employees who were at Chaffee during the June 1 riot?
4. Do Americans who have been hurt by Cubans have to pay their own medical expenses?
5. Who pays for security at Chaffee?
6. Who is paying for the expenses of the Cubans, such as food, clothing, and medical care?
7. Who pays the cost of transporting the Cubans to Fort Chaffee?
8. Why did the Cubans want to come here?

As we continued our "rap sessions," the interest in vandalism and other criminal offenses seemed to take the lead over the other topics. The students were horrified when I pointed out to them that criminal acts are committed by schoolchildren each day.

I asked what acts they considered to be crimes. They named murder, robbery, physical attack, and other major crimes. I pointed out that crime is often committed in the classroom. They had not thought of pocketing a pencil from the floor when the pencil didn't belong to them as a crime. Nor had they thought of taking money from someone's tote tray as a crime. They hadn't thought of breaking glass in the school or taking the cover from a drain pipe as crimes.

Our School

The discussions we had at the beginning of the term concerning the Cuban situation proved to be so successful that I continued them. I used them for reinforcing previously introduced concepts, clearing up misconceptions, and sharing news about current events. New economic terms and concepts also were introduced during those sessions. Most of the time I was able to give the students enough clues so they could figure out the meaning of new terms and concepts. It made the children feel good to figure things out for themselves, and as they learned more they became increasingly more efficient at their task. I always had an activity planned for the discussion sessions but frequently changed the schedule to include current events, which added immediacy to our study. I started by bringing newspaper articles to class, but in a short time the students brought in articles themselves and reported what they heard on the news. Usually our sessions were scheduled for a particular time of day, but they also occurred spontaneously.

I used many filmstrips and printed materials to introduce concepts or to reinforce what had been studied. These activities involved the whole class, small groups, and, in some cases, an individual child. The students did some research in committees and reported their findings to the class.

In keeping with the theme of our study, I asked about the consequences of employee theft. The students immediately realized that it cost money to replace stolen property. They reacted with shock when I told them that the cost would be passed on to the consumer. I explained that employee theft resulted in higher prices for consumers.

Some of our discussion sessions during this time concerned the spending of tax money in our school. Most of the students had never stopped to think that the playground equipment, books, and furniture were paid for by taxes. That, in fact, made those things the property of us all. It was a bit of a shock to the students to realize they were actually tearing up their own property when they destroyed the playground equipment to keep others from using it. Our playground took on a cleaner appearance because the students didn't like the idea of spending tax money to pay school employees to clean the playground. As the year progressed, I noticed that fewer of my students were leaving books outside. Their tote trays were less junky, and there was less paper to pick up from the floor at the end of the day. We never really stopped working on these problems, but it became easier as the students learned more economics.

The World of Business

The first goal in this lesson was to distinguish between private and public enterprise. We began by naming some private enterprises in the mall and some factories. The students quickly understood when I told them a public enterprise, like a school, is financed with tax money. A public enterprise should run efficiently so that tax money will not be wasted.

I told the students that a private enterprise must make a profit to stay in business and that many expenses must be paid before a profit could be realized. They were quick to name crime-related expenses that a business might incur, for example, alarm systems, burglary insurance, shoplifting and vandalism losses.

At this point, I wanted the class to understand how crime and crime prevention affect the cost of doing business. I asked Jerry Barling, owner of Gun City, a retail gun shop, to talk to the class. He showed us forms that had to be filled out when firearms were sold. There were still other forms to fill out if the customer was from out of state. He explained that all of this was part of an effort to keep firearms out of the hands of potential criminals.

Mr. Barling said most of his customers were hunters and bought the firearms for recreational purposes. He told of some expenses that he must pass on to the consumer in order to make a profit. He said he recently installed an expensive alarm system and also pays $47 a month for special telephone lines that are hooked up directly to the police. The insurance policy he owns covers fire, theft, and vandalism.

I asked J. B. Turner, a local banking official, to speak to the students. Mr. Turner explained the role of the Federal Reserve system, the several kinds of savings accounts his bank offered, and the methods of determining interest rates. The students listened with interest to Mr. Turner. Finally, Linda asked, "How does crime affect your business?"

Mr. Turner replied that since robbery was the most common type of crime a bank is subject to, the bank's crime-related expenses were incurred mostly in efforts to prevent burglary and apprehend burglars. A sophisticated camera and alarm system were among costly equipment the bank used. Mr. Turner concluded his presentation by telling the children that a bank employee seldom steals from the bank. He explained that the bank chooses its employees carefully. In addition, official examiners check the bank records. The bank pays for this service and never knows when the examiners will come.

We had studied crime and delinquency in several private enterprises, but had not mentioned farming. I asked Leo Allison, a cattle farmer, to visit our class. Mr. Allison began by telling the children about his 500-acre cattle farm in South Sebastian County, where he also raises hay. He explained that farm equipment was expensive. Rather than invest in machinery themselves, many farmers hire others who own the equipment to do the work. Mr. Allison had invested in equipment, so he baled hay and cleared land for other people.

The students were quick to ask Mr. Allison about crimes on his farm. He said the most common crimes were vandalism and theft. Sometimes juveniles shot at signs and mailboxes, and hunters shot cows. People also threw things into pastures or started fires.

In reply to a question about insurance, Mr. Allison said he had insurance against arson but not on all his large pieces of equipment. He said the insurance on theft or vandalism of large equipment was so high that he could not afford it. Instead, he took precautions, such as keeping the large pieces close to his house or where he was working. He thought vandals and thieves would not be likely to come near a house. He also kept his fuel tanks locked.

The World of Government

The city of Barling recently changed to the mayor–city director form of government. I asked the mayor and two city officials to explain the city budget to the students.

The students paid special attention when the mayor came to the crime prevention section of the budget. He told them the city had three police cars, and their upkeep cost $7,000 annually. Another $7,000 was budgeted for a new vehicle. Attorneys' and judges' fees cost the city $8,000 a year. The city spent $2,000 on office supplies, such as tickets and other forms.

I asked JoAnn Kyral, superintendent of the Fort Smith National Historic Site, to explain its budget. After explaining the total budget for the fiscal year, she described the sections concerning crime prevention. For example, $1,680 was in the budget for an alarm system. She explained that they had bought the equipment outright, and continued to pay a monthly service fee to the company that had developed the system.

Superintendent Kyral explained that she has to make decisions concerning budget priorities. She distributed sample forms used by park superintendents to justify expenditures. She also talked about the many ways tax dollars were used to provide park security against vandalism and theft, which are the most frequent crimes she encountered in her job.

Concluding Activity

Ms. Kyral is a member of the Fort Smith Pride committee. She asked if the students could prepare a public-service announcement and tape it for TV. The students were aware that they wouldn't all be in it but were delighted to help anyway. We decided to let a committee write the script, after the entire class had agreed upon a theme. We listened to tapes of the skits so that we could tell whose voices would sound best on the air. Terri, Kathy, and Robert were chosen to make the tape.

A committee wrote the following script:

ROBERT: We have just finished picking up some of this trash, and it was hard.
TERRI: Now we can take pride in what we have done. If only other people would remember to pick a little trash up too, they could have pride.
KATHY: We would like you to clean up the city so it will be nice and pretty.

The children spoke the lines as they threw refuse into a trash can at a local park.

On the day the three students left to make the tape, the other children wished them luck. They seemed pleased to have Terri, Kathy, and Robert represent them. The announcement was still running when school ended.

Evaluation

My students were always conscious of waste and crime. They shared their knowledge with other students every time they got a chance. They didn't get into fights as often because they solved their problems other ways, and they shared more.

We could tell that some of the sixth-graders were planning something major for the last day of school. We had clues that they were planning to throw eggs at the building and cars.

That last day I was on outside duty before school. I walked toward a group of boys and noticed they included some of my fifth-grade students and some sixth-graders. As I walked by, I overheard some of my students trying to convince the sixth-graders that what they were planning to do was wrong. I heard fifth-graders tell the sixth-graders how much tax money would be wasted if they carried out their plans.

Nothing bad happened that last day. I believe some of my students talked or scared some of the sixth-graders out of carrying out their plans. If my students were able to influence their peers in that way, the economics unit was successful.

GOOD IDEAS IN BRIEF: INTERMEDIATE LEVEL

STANLEY K. WELLS, a fourth-grade teacher in the *Echols Elementary School, Fort Smith, Arkansas,* organized a twelve-week unit using a classroom newspaper as the basic instructional tool. The project was divided into four main study topics: scarcity, division of labor, resources and productivity, and the market system. The overall goal was to introduce the students to basic economic concepts such as advertising, competition, capital, consumption, income, monopoly, and profit. Activity or task cards were used to help children apply the concepts to their own lives. Each student was required to complete a minimum of three task cards. In the first phase of the unit, students prepared vocabulary cards and dictionaries containing many economic terms and engaged in games and role-playing activities to reinforce their understanding of economics. Throughout the unit, the pupils were provided opportunities in decision making, learning to examine problems rationally and systematically. Students made bulletin boards, wrote reports, and read newspaper articles dealing with economic issues and problems developed in the project. A particularly interesting activity involved having the class make a product, using an assembly-line technique designed to reinforce the concepts of division and specialization of labor. A visit to a local business helped the class develop an understanding of the factors of production. The entire program was highly successful in that the students learned many economic concepts and terms.

BARBARA STAPLES, a fifth-grade teacher at the *Greenwood Elementary School, Louisville, Kentucky,* developed a unit entitled "America on Wheels: The Social and Economic Importance of the Automobile" for her twenty-six students. The highlight of the project was a field trip to the Ford Motor Company, where students were exposed to the assembly-line and mass-production processes utilized in the automobile industry. The students discussed the advantages and disadvantages of division of labor and specialization and gained a better understanding of such economic concepts as demand, supply, costs of production, profit motive, production, and forms of business organization. Emphasis was on the importance of the automobile to the economy of the United States. As declining automobile sales and layoffs in the industry were reported almost daily in the newspaper, the class became aware of such economic topics as unemployment, unions, seniority, imports, trade, government regulation, energy, inflation, and technology. The unit also included a simulation in which the students took roles as representatives of management, labor, and government and attempted to resolve issues dealing with the declining automobile market, labor disputes, contract negotiations, inflation, and government subsidies. This led to a discussion of management-labor relations and the impact of organized labor and collective bargaining on the economy.

SUSAN PILLAR, of the *Woods Elementary School, Fort Smith, Arkansas,* planned a unit called "Wheeling and Dealing in Economics" for fourth-grade students. The unit was organized to last thirty-six weeks, utilizing one class period per day. Capitalizing on the students' interest in bicycles, the project was designed to develop the concepts of economic wants and needs, productive resources, scarcity and choice making, opportunity cost and trade-offs, the market system, and the effects of technology and specialization. The overall objective of the lessons was to give students a deeper understanding of the energy problem facing the United States and the effects of a decrease or increase of supply upon the price of gasoline and other energy sources. A major activity involved having the pupils survey their parents to determine the amount of gasoline purchased and the total cost of operating automobiles for each household. The children observed the wide range in prices among service stations and came to understand why energy conservation is a major economic goal for the nation. The project used resource speakers, games and simulations, audiovisual materials, and discussions in order to develop understanding of basic concepts and practices. In one activity the children debated the relative advantages and disadvantages of using bicycles instead of cars as a means of transportation. The unit could be integrated into the social studies curriculum or taught as a self-contained program.

BRENDA LYONS, a sixth-grade teacher at *Morrison Elementary School, Fort Smith, Arkansas,* developed a program utilizing music to emphasize key economic concepts. A major objective was to help children develop a greater appreciation of the role of music in the economic growth and development of the nation. The project began with a reading of Walt Whitman's poem "I Hear America Singing." The class discussed the poem and learned that music helped to increase labor productivity by relieving employee fatigue and improving morale. Throughout the unit, students discussed key economic ideas. For example, the class was divided into groups, given several music books and a collection of tapes and records, and asked to pick out songs about early American workers. In the process, the students learned that sea chanteys and riverboat songs were used by sailors in the early days to lighten the work and keep morale high on board ship. Songs of cowboys, lumberjacks, railroadmen, coal miners, and Southern plantation workers also were used to illustrate such economic concepts as productive resources, specialization, profit, consumption, money, unions, technology, scarcity, capital, and economic freedom. The students examined the yellow pages of the local phone directory and discovered that many people and businesses are involved in music-related activities. A concluding activity was the class play. Finally, a post-test was administered.

MARCIA A. BAKER of the *Snowshoe Elementary School, Palmer, Alaska*, designed a unit called "The Caribou Caper" for fourth-grade students, which led to the formation of a classroom corporation. The project was designed to give students practical experience in operating a business and introduce them to basic economic concepts. The children took on the roles of various Alaskan animals, including the clever caribou, and gained insights through active participation in a business of their own called the Caribou Cache. The main character in the simulation was a caribou named Mr. Tutu, who helped introduce many concepts developed in the nine-week unit. A sixty-page teacher's manual, written by the project's author, was the basic intructional tool. It described the characters involved in the project and developed such key economic topics as consumption, scarcity, price, profit, opportunity cost, capital, forms of business ownership, dividends, and productive resources. The store was open for business for thirty minutes every day, immediately after the close of school, and gave students experiences in making important business and investment decisions. Pre- and post-tests were used to evaluate the students' understanding of economics. The project included a variety of activities, including games, filmstrips, poems, stories, and resource speakers.

WARREN EDMISTEN of the *Sutton Elementary School, Fort Smith, Arkansas*, organized a project for fifth-grade students designed to incorporate economic concepts in a study of paper manufacturing. The unit began with a discussion of the origin of paper and of the Chinese people, who were the first to make paper through a process of boiling rags and plant fibers. An important activity the students engaged in was collecting scrap paper from each classroom teacher in the school. After the paper was weighed, the students calculated that the school wasted nearly 3,000 pounds of paper each year, and they also made an estimate for the entire state of Arkansas. Three of the students used the encyclopedia and other reference materials in the school library to prepare a report on U.S. companies that produce paper and paperboard products. Some students investigated the various ways people use paper in various parts of the world, and they presented their findings to the class. The report helped the students understand a number of key economic ideas in addition to learning how paper is manufactured and distributed in the United

States and abroad. The class discussed the kinds of capital resources used in the paper industry, the different types of trees used to make pulp, and the many skilled employees and managers who help to make paper products. Also included among the various activities was a field trip to a recycling plant and a discussion of issues related to the conservation of resources.

JOANNE BONDER and BEVERLY KERECMAN, teachers of fifth-grade hearing-impaired students at *Millridge Center for Hearing-Impaired Children, Highland Heights, Ohio*, developed a unit entitled "From Peanuts to Profits," which led to the creation of the class-owned Candyland Corporation. The unit lasted the entire year and was presented in three phases: (1) colonial America, (2) the industrial revolution, and (3) modern times. Essentially, the program was designed to relate these three periods in American history to the children's everyday experiences. The project incorporated field trips, manipulative games and simulations, audiovisual materials, and oral and written exercises to enhance the economic understanding of the fourteen hearing-impaired youngsters, who ranged in age from eleven to fourteen years. A highlight of the project was a field trip to the Middlefield Cheese Factory to learn more about the process of production. The most exciting event was setting up the corporation and marketing and selling a real product. This experience encouraged and developed the children's self-confidence, improved their oral-communication skills, and helped increase their competence in economic decision making. As a final activity, the class prepared a mural explaining the organization and operation of the corporation and presented a report to their parents at the conclusion of the project. The success of the activity was highlighted by the number of guests attending the evening program and the letters of commendation received.

MARGIE DUNLEVY, a fourth-grade teacher at the *McKinley Elementary School, Lakewood, Ohio,* designed a year-long project in economic education for ninety students, who created their own corporation. The major purpose was to help students gain a deeper understanding of the American economic system and learn how economics affected their everyday lives. The students became entrepreneurs by role-playing in simulated activities. In the course of the year, the students actually established and operated three separate companies, a bank, and a newspaper firm. Using local community problems and issues as points of departure for the study of economics, the class learned about scarcity, money, price, supply, demand, opportunity cost, and division of labor and specialization. For example, while investigating ways of financing field trips, the students decided to form their own company called the McKinley Money Makers and produce inexpensive Christmas gifts for the entire school. The project was highly successful; it garnered enough profit to pay the cost of renting buses for the field trips. In discussing the various gifts that the company should produce and sell, the students improved their understanding of money and profit in the U.S. economy.

CHAPTER THREE

Using Social Studies Skills Lessons to Teach Economics Concepts and Analysis

Bruce Jasper
Hosterman Junior High School, New Hope, Minnesota

Background

The Robbinsdale School District, to which Hosterman Junior High School belongs, has developed broad social studies objectives which fall into two categories: concept development and social studies skills development. The seventh and ninth grades students take pre- and post-tests on achievement in the two categories.

Economics is the ninth-grade social studies course in my school district. The year-long course has three sections. The first lasts fourteen weeks and consists of a basic introduction to economics concepts and generalizations.

We assume that our students have had no previous formal economics education and that they have relatively little economics knowledge. We start Section I by developing an economics vocabulary and an understanding of basic economics terms and concepts. Those emphasized include productive resources (natural, human, capital goods), economic wants, scarcity, opportunity costs and trade-offs, goods and services, basic questions confronting all economic systems, markets, competition, supply, demand, price, economics systems (tradition, command, market), producer, consumer, profit, and growth.

Section II reviews the macroeconomics concepts developed in Section I, with applications of current interest. All elective topics are selected because they (1) present an issue over which there is spirited public debate, (2) involve a topic in which economic analysis is important in making wise public decisions, and (3) deal with a topic of interest to ninth-grade students.

Over the past several years, the electives have included "The Economics of Crime," "Pollution and the Environment," "Labor-Management Relations and

Collective Bargaining," "Teenage Unemployment and Economic Opportunities," and "The Energy Crisis: Is It Real?" Examination of the topics emphasized the cost/benefit approach used by economists.

Section III examines personal economic decision making and skill development. In this ten-week unit, students are involved in a complicated simulation I developed. Ninth-grade students plan a community in which they can start businesses, apply for jobs, open savings and checking accounts, purchase real estate, obtain bank loans to purchase homes, cars, and other goods or services, budget incomes, purchase stocks and make other investments, write checks, and pay bills.

In outline, our economics course had the following form:

SECTION I (14 WEEKS): BASIC INTRODUCTION TO ECONOMIC CONCEPTS AND GENERALIZATIONS

Objective: Develop an economics vocabulary and an understanding of economic systems.

Units:

Introduction to basic concepts
Economic systems
Mixed-market economy of the United States

SECTION II (12 WEEKS): ECONOMICS ELECTIVE

Objectives:

Cost/benefit analysis of public issues
Application of economic concepts developed in Section I

Units:

Economics of crime
Labor/management relations and collective bargaining
Energy crisis; Is it real?

SECTION III (10 WEEKS): COMMUNITY ECONOMICS SIMULATION

Objective: Develop personal economics decision-making skills

Units:

Community simulation
Money, banking, and the Federal Reserve system

In the past few years, activities, simulations, and entire units we devised have been distributed throughout the school district, the state of Minnesota, and the United States as an exemplary strategy for teaching economics concepts in an interesting and intellectually sound way to junior high school students. Our program at Hosterman has been successful because our ninth-grade economics course is set up to achieve the following objectives:

1. To develop an economics vocabulary and an understanding of basic economic concepts and economic systems;

2. To give students the opportunity to analyze issues using the economist's cost/benefit approach;
3. To develop economics decision making and personal economics skills.

The Challenge

Robbinsdale teachers used to present social studies skills in the ninth grade in a relatively loose manner. For the most part, lessons emphasizing skills development were presented as separate entities in the economics curriculum. Some school years, teachers seemed to stress social studies concepts; in other years greater attention was paid to skills development. There was no organized program designed to emphasize both social studies concepts and skills.

As we reviewed existing skills development lessons in the district, we found very few of them applicable to the study of both economics concepts and economics analysis. Thus, our challenge was to develop a series of skills lessons that would focus on economics topics and be consonant with the existing successful economics curriculum. In effect, our major project entailed blending social studies skills with our economics core.

As we thought through our planning, we determined that most of the skills lessons would focus on a single economic concept or topic. The narrow-concept focus of each lesson, we believed, would aid the utilization of each skills lesson by the teachers. Additionally, the lessons would not become dated as the curriculum was modified.

Organization

To accomplish our objective, we developed a strategy to provide students opportunities to learn and practice specific social studies skills in parallel with their learning of economics concepts. As we proceeded, we determined that each skill would be applicable to at least two economic topics or concepts and, therefore, would be covered at least twice during the first eighteen weeks of the ninth-grade economics course.

Our guide for the lessons was the set of social studies skills that appear in the pre- and post-tests used at Hosterman Junior High School and defined by the Robbinsdale School District:

1. Use of textbook (ability to use table of contents, index, and glossary)
2. Use of the *Readers' Guide to Periodical Literature*
3. Use of the card catalog
4. Use of the encyclopedia
5. Use of graphs (line, circle and bar) and tables
6. Analyzing editorial cartoons
7. Distinguishing between fact and opinion
8. Distinguishing between biased and unbiased materials
9. Recognizing points of agreement and disagreement
10. Using time lines
11. Evaluating the reliability of sources

We gave each teacher a folder of skills lessons cataloged by the skill and economic topics in each lesson. For example, when teachers presented a unit on inflation, they could select the skills lessons focused on inflation. We arranged the skills lessons in a developmental sequence, paralleling the sequence of economics topics in Section I. As a result, students could simultaneously study economics and advance their social studies skills.

Scope and Sequence

In the course of the year, we developed forty-eight skills lessons. The time allocated to each lesson varied. For example, each economics cartoon skill lesson was designed to take about fifteen minutes. Lessons using the *Readers' Guide to Periodical Literature* took two to four class periods.

When we organized the project, we expected that the use of social studies skills to reinforce economic concepts and topics would have the following positive results:

Students will:

1. Show an increase in their economic knowledge as measured by district-wide pre- and post-test results;
2. Show an increase in their social studies skills competency as measured by district-wide pre- and post-test results;
3. Be better able to use social studies skills to critically analyze and evaluate a wide range of materials with economics content. The skills lessons included excerpts from local newspapers, magazines, texts, radio, movies, editorial cartoons, and other publications;
4. Be helped in reaching the general economics objectives of (a) developing and mastering an economics vocabulary, and (b) using cost/benefit analysis as a decision-making model.

Lesson Structure

The first activity in each lesson included a brief introductory statement about the skill and how it could be helpful in evaluating information and making rational economic decisions. We expected teachers to expand the brief introductory comments according to the needs of individual classes. Where a specific skill was to be used frequently in conjunction with a variety of economics topics, e.g., understanding bar graphs, the teacher was reminded to review the introductory statement to insure that all students understood the skill.

As indicated, the skills lessons were meant to be used in teaching economic concepts, rather than independently. Again, we assumed that teachers would modify, clarify, and discuss the lessons in whatever way seemed best for each class; we did not expect that every teacher would include every skills lesson and all the activities.

The accompanying outline for the first eighteen weeks of the school year shows the sequence of the materials and their integration into the existing economics curriculum. The outline includes the economic concepts emphasized in each unit, key instructional activities, and suggested placement of skills lessons.

Evaluation

District testing was supplemented by the more comprehensive *Junior High School Test of Economics*, published by the Joint Council on Economic Education. Consisting of forty-eight multiple-choice questions, the instrument was used only as a post-test. The JCEE test includes some questions on topics not directly taught during the first fourteen-week unit; nevertheless, 17 percent of our ninth-grade students (three classes) scored over the ninetieth percentile and 49 percent achieved the eightieth percentile or better. Even though both the district-developed test instruments and the JCEE test require higher reading abilities than many of our junior high school students have, we were most satisfied with the success of our efforts.

Although hard data are limited, we were pleased to note that students appeared to do better on questions which related to the topics of inflation and the gross national product. Both topics were highlighted in specific skills lessons. This may suggest that in the future, as topics are emphasized through skills lessons, students will show improvements in test results.

Next year, after the revised economics topics skills lessons have been used in a more sequenced and consistent way, the students will be tested again to determine whether there has been general improvement.

INTRODUCTORY CONCEPTS: TRADITIONAL ECONOMIC SYSTEM (4 weeks)

Economic Concepts Introduced and/or Developed	Key Activities	Skills Lessons

Economic wants
Productive Resources
  Natural
  Human
  Capital goods
Scarcity
Opportunity cost (Trade-offs)
Distribution systems: Traditional economics
Economic questions
  What
  How
  For Whom
Interdependence
	Texts:
	  Primero Dinero
	  Economics for Everybody, Antell & Harris
	Films & filmstrips: Walt Disney Economic Concept Series
	Project Business speakers from Junior Achievement
	Simulations:
	  Seal Hunting (distribution)
	  How to Use Your Resources (opportunity cost)†
		*Table of Contents Lessons I, II: Texts—*Economics for Everybody*; & *What Citizens Need to Know About Economics*
		*Index Lesson I, II: Excerpts from economics texts
		*Glossary Lesson I: Excerpts of economics terms
		**Readers' Guide to Periodical Literature* Lesson III: Energy supplies
		The Circle Graph Lesson I, II, III, IV: World and U.S. Energy Resource Production and Consumption
		Biased/Unbiased Lesson I: Pollution and Energy Resources

Footnotes appear on the last page of this series of outlines.

INTRODUCTORY CONCEPTS: COMMAND ECONOMY (3 weeks)

Economic Concepts Introduced and/or Developed	Key Activities	Skills Lessons
Distribution Systems: Command Economy	Films & Filmstrips: *Animal Farm* *The Industrial Revolution*	Bar Graph Lesson I: World Inflation Rates
Central Planning	Simulations: Command Economy Game†	*Economic Cartoons Lesson I, IV: World and U.S. Resource Scarcity
Economic Questions What How For Whom		*Economic Cartoons Lesson VI: Environment vs. Energy Production
Goods/Services		Fact/Opinion Lesson I: Economic Systems Compared
Producer		
Consumer		Biased/Unbiased Lesson II: Economic Systems Compared
Economic Growth		
Incentives		
Division of Labor		

Footnotes appear on the last page of this set of outlines.

MARKET ECONOMY (7 weeks)

Economic Concepts Introduced and/or Developed	Key Activities	Skills Lessons
Mixed Market Economy Market Competition Supply Demand Price Profit/Profit Motive (incentive) Economic Growth Government Regulations Specialization Money GNP Inflation Unemployment Recession/Depression Investment Taxes	Text: *Economics for Everybody* Film & filmstrips: *Kingdom of Mocha* *Mrs. Peabody's Beach* Project Business speakers from Junior Achievement Simulations: "The U.S. Mixed Market Economy"† New City Telephone Company simulation—extensively modified for use in ninth grade	*Encyclopedia Lesson I: Economic Growth and the Industrial Revolution Agreement/Disagreement Lesson I: Minimum Wage (Supply & Demand) The Line Graph Lessons I, II, III, IV: U.S. Inflation 1900–Future *Economic Cartoons Lessons II, III: Inflation Charts and Tables Lessons I, II, III: Unemployment Data Agreement/Disagreement Lesson II: Government Regulations Reliability of Sources: Lesson I: Government Spending Priorities *Glossary Lesson II: Stock Market Terms **Readers' Guide to Periodical Literature* Lessons I, II, III: Selected topics can vary; can include Inflation, Unemployment Biased/Unbiased Lesson III: Taxes

Footnotes appear on the last page of this set of outlines.

LABOR-MANAGEMENT RELATIONS AND COLLECTIVE BARGAINING (4 weeks)

Economic Concepts Introduced and/or Developed	Key Activities	Skills Lessons
Productivity Recession/unemployment Seniority Collective bargaining Union Compromise Automation Recession/depression	Readings: Material about Minneapolis newspaper strike Film & filmstrips: *The Inheritance* *Strike in Town* Discussions/group activities: Case study: Minneapolis newspaper strike Case study: Snowmobile industry Simulations: Collective bargaining simulation†	*Card Catalog Lessons I, II, III: Personal Finances and the Great Depression Biased/Unbiased Lesson IV: Attitudes Toward Big Business Reliability of Sources Lesson II: Collective Bargaining *Encyclopedia Lesson II: Events in Labor History *Economic Cartoons Lesson IV: The Auto Industry Fact/Opinion Lesson II: Collective Bargaining and Strikes Time Lines Lessons I, II: Events in U.S. Labor History

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*This skill lesson is especially easy for the teacher to modify by including other topics or more recent information.

†This simulation was developed by the author.

To Specialize or Not to Specialize – That Is the Question: An Inquiry-Based, Conceptual Study of Specialization

Patricia Luna
Harris County Middle School, Hamilton, Georgia

Introduction

Harris County Middle School is a small, rural school in southwestern Georgia. All sixth-, seventh-, and eighth-graders in the county attend this school, yet enrollment was less than 500 students at the time this instructional unit was developed. Grouping is homogeneous and is determined by test scores and performance in previous grades.

I taught all seventh-grade social studies classes. The subject of study, as set by the state of Georgia, is American history. My curriculum included many fundamental economic concepts. The unit described in this abstract consists of one of those lessons, focusing on specialization.

Rationale

Specialization is fundamental in contemporary society, yet it is rarely taught. During the week-long unit, students learned about specialization, interdependence, division of labor, efficiency, and profit. The unit was designed to reinforce the concepts about goods and services which were the subjects of earlier lessons.

To cope with the relatively short attention span and need for social contact of middle school students, the lessons provided great variety to hold the interest of the pupils. The lessons also included considerable group work in order to satisfy student needs for peer contact.

The lessons stressed the inquiry process. Each of the five steps in this technique was mastered. Additionally, the unit incorporated a value-analysis experience, an exercise in critical thinking, and visits to a Columbus furniture factory and a local furniture shop.

Instructional Objectives

Students will be able to:

1. Determine whether a business produces a good or a service;
2. Hypothesize about efficiencies realized through specialization;
3. Test their hypotheses through experimentation;
4. Evaluate an hypothesis and reach a conclusion based upon evaluation;
5. Relate their conclusions to additional data in order to test the reliability of their conclusions.

Activities

I began the unit by presenting the student with a dilemma. In this strategy, students are encouraged to express their opinions on an issue brought about through a situation that does not have "right" or "wrong" answers.

The following is a brief summary of the dilemma:

> A junior high school had an enrollment of only 200 students and one athletic coach. Yet, the school participated in five sports. Each of the five teams had losing records just about every year. One of the teachers suggested that the sports program consider specializing, the idea being that if only one or two sports were offered the team members and coach would have more opportunities for improvement. The teacher hypothesized that if the sports program were not spread so thin, the school would enjoy a better record and more success in the one or two sports selected. Another teacher disagreed, indicating that it really did not matter whether the teams won or lost as long as students were participating.

The students were to decide what they would do if they were the coach. The first step was have the students answer a series of questions that proceeded from the level of comprehension to abstract analysis. The questions included the following:

1. What was the problem?
2. What did each teacher suggest?
3. Can you infer from their suggestions what they valued?
4. What might be the source of the teachers' values?
5. Are there any other values people might hold concerning this issue?
6. What might be the results of carrying out each position?
7. If you were the coach, what would you do?

After the students had answered the questions, the class discussed the problem. Participation was high because I stressed to the students that there was no one correct answer. Topics of each discussion included the definition of all terms, the recognition and refinement of the problem, and the expression of opinions on the topic.

The purposes of the exercise were to provide motivation and to encourage self-expression, affective development, and value analysis. The discussion served as an informal pretest to discover how familiar the students were with the above matters.

The final objective of questioning was to have students recognize the presence of a dilemma. This is the first step in the inquiry process, and, as discussion continued, students wanted to know whether "specialization was the best system." With this development, the class was ready to move into the motivational and instructional phases of the inquiry process.

The second step in the inquiry process is to gather data. For that purpose, I gave the students a list of the thirty principal businesses in the town. The students were to find out what the main products of each business were and then to determine whether each product was a good or a service. This activity reinforced previous lessons on goods and services. Finally, the students were to determine whether the business specialized or not.

The third step in the inquiry process is to form hypotheses and the fourth is to devise methods of testing them. After all the students had finished the exercise, I divided the class into groups of four or five. I gave each group a questionnaire, which could be completed by using the information gathered in the previous exercise on local businesses. The questionnaire was to lead the students to form hypotheses based on inductive reasoning. The questionnaire items were:

1. How many businesses provided principally goods?
2. How many businesses provided principally services?
3. How many businesses made or sold one or two goods or services?
4. How many businesses made or sold more than two goods or services?
5. Do more businesses sell one or two goods or services or do more businesses sell more than one or two goods or services?
6. Why do you think your answer to number 5 is correct?
7. Based on these results, do you believe specialization is efficient?
8. In your own words, define specialization.
9. Form an hypothesis to express your opinion on the efficiency or inefficiency of specialization.
10. List all the possible ways you could test the hypothesis your group has formulated.

On the tenth item, the students were urged to brainstorm and they succeeded in developing several methods to test their hypotheses.

Most of the groups hypothesized that specialization was the most efficient system, although at least one group in each class took the contrary position. The most often repeated hypothesis was: "Specialization is the most efficient economic system."

After all the groups had completed the questionnaire the class discussed the answers. The hypothesis each group had formulated and the testing methods were the central focus of this discussion. Each of the methods the groups presented was written on the chalkboard. After all the techniques had been recorded, the class discussed the feasibility of each one. The class made its choice on the basis of this discussion and a realistic examination of school and community resources.

The first method chosen for testing the hypothesis was to consult several business "experts." The students chose a representative from each of the six classes, who was made responsible for eliciting answers to two questions, also chosen by the students. The questions were: Which system do you feel is the most efficient, specialization or nonspecialization? Why? These six students each asked a different business operator in town to give an opinion. As it turned out, all the businesses stated that they believed specialization was the more efficient system.

The students each received a copy of the responses as well as a data-analysis sheet on which to evaluate the responses. The questions on the sheet were:

1. Does the information relate to the hypothesis? How?
2. Is the data authentic? What leads you to believe this?
3. Does the data seem accurate? Why?
4. What unstated assumptions can you locate?
5. List all the facts you can find among the responses.
6. List all the opinions you can find among the responses.
7. List any examples of faulty logic.
8. What evidence of bias can you locate?
9. What inconsistencies can you find?
10. Are there any unsubstantiated conclusions? If yes, which conclusions are unsubstantiated?
11. What do you think is the respondent's frame of reference?
12. Are there any additional inferences you can make?

The students used the questions to analyze each of the six opinions. Following the individual assignments, the class discussed each item on the data-analysis sheet. The students were able to analyze the opinions remarkably well. After discussing each of the twelve questions, the discussion now centered on specialization. I asked the question, "Which do most businesses feel is the more efficient system?"

Because the six businesses felt specialization was the better system, the students all agreed that specialization was viewed by businesses as the most efficient. My next question was, "Why do businesses feel this way?" Each class then listed reasons based on the opinions offered by the businesses. Once the lists were completed I provided a summary.

Simulation

For the second test the class devised an experiment. The students made paper hats, footballs, and airplanes. First, the students did not specialize, and

FIGURE 1. NUMBER OF PAPER PLANES, HATS, AND FOOTBALLS PRODUCED

	Not Specializing #1	Specializing #1	Specializing #2	Not Specializing #2
Hats				
Planes				
Footballs				

they made as many hats and footballs and planes as they could in 45 seconds. Next, the students specialized; each student made either hats *or* footballs *or* planes. The students were to make as many of whatever they were assigned as possible in 45 seconds. To control for extraneous variables, such as practice, the order was then reversed. First the students specialized, and then they did not specialize.

At the end of each production session, the class wrote down the output of the products on the chalkboard (see Figure 1).

In every class, specialization was clearly the more efficient. The tally sheet visually depicted the advantage of specialization. In one class the advantage was as high as 3-1. In most of the classes the advantage was about 2-1. Using these data and those in the "experts' opinions," the students were prepared to reach a tentative conclusion. In the subsequent class discussion, the students concluded that specialization was the more efficient system.

The last exercise had two primary purposes. The first was to provide another test of the hypothesis; that activity concluded the testing phase. The other purpose was to develop a tentative conclusion—the fifth step in the inquiry process.

The next day, all the students visited a company that made rocking chairs by hand and a local furniture manufacturer that also made rocking chairs. Both businesses provided the class with their latest profit report, free samples of the materials used, and an estimate of the time necessary to complete one unit.

When we returned to school the profit reports and the time estimates were compared on the blackboard. The time necessary to complete one handmade rocking chair was nine hours. The company realized a $10 profit from each $45 chair. The time necessary to complete one factory chair was thirty minutes. The manufacturers made a $15 profit on each $60 chair. The students decided this did support their conclusion – specialization was indeed more efficient. This activity tested the conclusion with additional data, which is the final step in the inquiry process.

Evaluation

The students received two pictures. One showed a specialized society, the other a nonspecialized society. Under each picture was a set of questions:

1. Is the society in the picture specialized or nonspecialized?
2. What characteristics of specialization do you see?
3. What characteristics of nonspecialization do you see?

Over 98 percent of the students answered these questions correctly. The 2 percent who did not received peer tutoring and retesting. These students eventually passed the test. Over two hundred students in Harris County had learned some fundamental economics concepts and important skills. They had gone through the steps of scientific inquiry, and they had participated in a community survey. As they practiced democratic decision making, the students also had the opportunity to analyze their own attitudes. What is more, the students had discovered that economics was interesting.

Sew for Dough: An Economics Project for Educable Mentally Handicapped Students

Lucille Taylor
Hugo Junior High School, Hugo, Oklahoma

Project Overview

I am a teacher in special education for the educable mentally handicapped in Hugo, Oklahoma. During the past year, we organized a group of sixteen students, ranging from thirteen to sixteen years of age, with these characteristics:

1. IQ scores were in the fiftieth to the seventy-fifth percentile range;
2. Ninety-two percent of the students were from single-parent or totally broken homes;
3. All had been unable to follow our traditional program of studies in Hugo;
4. Twenty percent were unable to understand the differences between their first and last names;
5. Ninety percent were third- and fourth-generation offspring of unwed mothers;
6. All were either educable mentally handicapped and/or deprived.

In thinking about the curriculum I designed, I concluded that students like these must become independent or be forced to live off society.

Background and Goals

Since it was fairly obvious that most of my sixteen students were from families in which no one was employed, we expected they would not know very much about earning a living, spending money wisely, or budgeting. If they worked at all, it was likely they would secure jobs paying minimum wages. I concluded that my students needed economic education even more than students with better ability.

The goals of the unit I developed were very simple. I wanted to conduct a project in which the youngsters were to perform paid work.

Although my classroom facilities were somewhat limited, I did have the use of two sewing machines, one of which had been discarded by the high school home economics department. With this equipment, I decided to develop a project that would focus on organizing, owning, and running a sewing factory. Among the major objectives of the project were:

- To provide an activity that would lead to an understanding of the relationships between working, production, income, and output;
- To attempt to earn a profit that would be used to purchase supplies for the enterprise and some wholesome food for the students;
- To provide experiences in counting, making change, and controlling and making spending decisions;
- To provide an activity designed to bring out the importance of being self-supporting.

Procedures

The first and most outstanding activity was the sewing project. Using the Joint Council on Economic Education's *Master Curriculum Guide in Economics for the Nation's Schools*, the Oklahoma *State Economic Guide for Special Education*, and the McGraw-Hill *Learning Skills Series (Math and Language)* as resource materials, we undertook the project.

After teaching the students to operate the sewing machine, the next step was to organize an employee-owned company and to conduct business meetings to determine various aspects of the sewing factory's operation.

It has been my experience that special-education students will work at most anything, providing it is interesting and there is emphasis placed on what they can do rather than on what they cannot do. This project clearly fit the bill, for who does not want to earn money and have stylish clothing at one-third or less the normal cost?

At the outset, prices were kept to a minimum in order to insure the success of the project. For example, only $5 was charged for each outfit, consisting of a skirt and a blouse. It was important that the students be assured the opportunity to sew and earn money.

Early in the school year, requests came in for choir outfits, Western shirts and pants, and other articles. The business continued to pick up, and many orders for apparel were placed prior to Christmas. Although students were allowed to sew for one hour only during the school day, many began to arrive early and stayed after school to complete their orders. Altogether, the students manufactured seventy-five new articles of clothing and repaired or altered an additional thirty-two pairs of jeans and twenty shirts and jackets.

The second activity developed out of a business meeting which had focused on a discussion of earning additional income. The students wanted to buy paper and pencils for their own use but at discount prices. This desire led to the establishment of a class store. After some discussion, the students agreed to buy their school supplies from the class store at the same price they would have paid elsewhere.

The stage was set for a study of wholesale, retail, and discount prices. Additionally, students became interested in taxes and tax exemptions in determining tax payments. There was no question that this study made these concepts far more meaningful. Prior to this, most had no idea where the money to support welfare checks, schools, highways, and other public services originated.

With businesses and corresponding profits growing, there soon existed a need for banking services. As part of our study, the students visited a local bank but were not able to grasp the essentials of banking until they opened their own class bank. As they shared the responsibility of running the bank, the students learned about printing checks, writing out deposit slips and checks, and maintaining records.

Considerable enjoyment was realized as the students wrote out checks, made deposits for their school supplies, and conducted transactions using real money. As direct outcomes of this activity, the students learned about borrowing money, to make notes of indebtedness, to make down payments on installment purchases, and to pay interest on their loans.

One of the more interesting aspects of the unit concerned voting and the political process. As one activity, an examination was made of how the news media can influence public thinking. It was difficult for my students to distinguish between fact and opinion and to recognize how attempts were made to influence their views on important issues.

During the campaign for the Presidency, the students watched TV every night and reported next day in class on the election news. As an outcome, we decided to conduct our own primary election. Some of the students campaigned for candidates, and, after making ballots that included the political party symbols, the students voted.

Our next phase related to health and nutrition. I wanted to bring out relationships between a balanced diet and good health. The students learned they ate more "junk foods" than they should, and although most had sufficient money to buy food they tended to spend it on the junk foods. In the course of the unit, our students learned that junk foods cost more than nutritionally balanced foods.

The students clipped magazine ads to make posters illustrating balanced meals, planned menus, and compared prices as advertised in newspapers. The students then did their own shopping and prepared a few meals in the classroom.

The most visible result of the unit on nutrition was that the students began to eat in the lunchroom at noon. Previously, they would rush to a nearby store to buy candy, pop, and other similar items. Even though "free" nutritionally balanced meals were served, the practice of the majority of students was to head for the store immediately after the dismissal bell at noon.

Project Outcomes

I cannot describe all the activities of the class in the space allotted for this abstract. It was evident that the students enjoyed shopping for sewing materials and groceries. As they conducted their businesses, they simulated paying utility bills, practiced banking skills, and gained the kinds of practical knowledge that they would normally acquire in a traditional class. For instance:

- The students learned to make, repair, and alter clothing. Although most of them were members of families who had known only welfare, these youngsters developed the initiative to work and support themselves. Several of the students were successful in obtaining part-time jobs;
- They learned how to read and understand utility bills. In the process they learned to recognize and define each item on a bill and found out when the meters were read and when the bill was due for payment;
- They learned to fill out applications for jobs, to conduct interviews, how to dress and act during interviews, and how to apply for Social Security cards, driver's permits, and credit cards;
- They learned how to write checks, to balance their accounts, and to ask for receipts whenever they made payments;
- They studied credit – the advantages and concerns about credit purchases; they learned about interest charges and the costs of credit;
- They learned about the hazards of impulse buying.

An equally important result was that the students practiced economic and survival skills along with "the three Rs" in a very meaningful environment. Being actively involved in a host of classroom activities, they developed a feeling of accomplishment and self-worth.

I was also pleased with the interdisciplinary aspects of the unit. For example, reading was greatly improved when the students read want ads; writing skills were reinforced when the class filled out forms and wrote checks. Legible handwriting became very important. Math became interesting, since the students had to determine balances and maintain the financial records of their businesses. Correct spelling and neatness were emphasized. There was no question that all of these would be of great value as the students entered adult life.

Summary

I was convinced that my students needed encouragement and the opportunity to be self-reliant. As they assumed financial responsibilities and learned about the dignity of work, they also developed a mental outlook that would help them cope in today's world. Perhaps my students are unable to define each word in the economics vocabulary we used, but they are aware of the concepts we stressed. There are great opportunities in Hugo, Oklahoma, for people who are capable and willing to sew and to do janitorial and domestic work. It seems to me that my students now have an important "head start," since they have learned that no job is too "low" and that each job should be done well. This unit provided a stepping stone to that basic idea.

A Simplified Model of a Free-Enterprise System

A Seminar for Students in Grades 7–9

E. M. Smith
Kimmons Junior High School, Fort Smith, Arkansas

Brief Overview

A six-week seminar on simplified modeling of a free-enterprise system was organized as an after-school activity for seventh-grade students enrolled in Kimmons Junior High. Students volunteered for the program and were selected on the basis of their performance in their regularly scheduled classes.

The seminar met twice weekly. Each session lasted twenty to forty minutes. During the first fifteen minutes, I gave a lecture, and during the remaining time students asked questions. I also encouraged the class to complete their research assignments.

I began the seminar with this relationship:

> The material welfare of an economy depends on the available natural resources that can be transformed into useful products by human effort plus capital goods.

Each meeting produced a discussion on a new component of the relationship.

Concepts and Objectives

Discussion centered around those basic economic concepts applicable to a free-enterprise system, including scarcity, market economy, supply and demand, natural resources, interdependence, automation, the labor force, and production.

The objectives of the seminar were centered on the relationship described above and included:

1. Creating interest in the study of economics;
2. Teaching students to apply the basic concepts to the broader problems of the economy, and to write out those applications;
3. Having students present research papers in their own handwriting, explaining one part of the relationship;
4. Quantifying the relationship.

The program allowed the teacher to break down the relationship and, with the information in the students' research papers, recompose it.

Procedures

In this unit my role was to motivate the students to conduct research. No information was given to students that would influence their research or sway them in any direction.

After the relationship was presented to them, the students worked out simple definitions in class. With the teacher's help, the relationship was broken down into its conceptual parts and each student was assigned one segment on which to prepare a research report for presentation at a later date. Thus, one student reported on the material welfare of the economy and another took up natural resources. No student was expected to report on the entire system.

During the period of about four weeks in which the students did their research, questions were invited and answered. At the same time, general interest was directed toward elements of the relationship.

The final activity of the seminar was the presentation of research reports to an audience of peers and parents.

Some Teaching Guidelines for the Unit

1. It is important that the instructor state clearly the objectives of the class: to understand and be able to discuss the definition of a free-enterprise system.

2. The instructor should not give direct or definitive answers but rather should suggest what an answer might include and guide the student to a research source.

3. Typed reports should not be accepted; this tends to prevent the student from having recourse to a family member as an editor. Students should write their reports in their own handwriting.

4. Only two meetings a week should be scheduled over a six-week period. In my project, research begins during the third meeting and concludes at the end of the fifth week. [Timing is important in order to avoid dullness.] The last week is used to allow students to make presentations before the entire student body and the PTA.

5. The teacher should limit class size. Students should be screened privately to ascertain that they are doing well academically in their required classes, and only those students successful in regular classes should be accepted for the seminar.

6. The seminar is information and research oriented, designed to generate enthusiasm for economics. My experience indicates the unit could be used at almost any grade level.

7. All discussion should be centered on the free-enterprise system. This leads to exploration of many basic economic concepts such as: the market economy, the reality of scarcity, supply and demand, natural resources as a vital element, interdependence, automation, the labor force, and production.

8. My observations suggest that the teacher should introduce whatever material is available to update basic concepts; the class will respond positively. Although the time was limited, it was adequate for effective study yet not long enough to produce boredom.

Summary

Through this research project students learned that a free-enterprise system will be responsive to the society of which it is a part. Students found the system requires effort because all the elements are interrelated. The question of scarcity arose through study of the relationship and was examined from the resource level to the marketplace. Student examined the relationship between independence and interdependence. Forcing the students to do their own research resulted in papers that went into considerable depth in order to explain and support the writers' views.

Evaluation of the project took place during the twenty-minute sessions. I tried to ascertain whether each student understood a certain component of the relation. I was pleased to find that 85 percent of the students were on track with the research. In all, the research project was a successful experience.

GOOD IDEAS IN BRIEF: JUNIOR HIGH SCHOOL

BUFFE PETROFF and PAULA DOMER, teachers of self-contained orthopedically handicapped students, and DOUGLAS DOMER, a special education work/study coordinator, in the *Reidinger Middle School, Akron, Ohio*, developed a unit, "The High Cost of Exclusion," for seventeen physically handicapped students. The project emphasized the relationships between work (employment) and play (recreation). Although physically handicapped, the students demonstrated their ability to work and showed how their behavior as consumers affected the community when they used their income to meet expenses involved in participation in a bowling league. The students used the economic knowledge and skills they had learned in sponsoring a "bowl-a-thon" to raise money for muscular dystrophy. Many economic concepts and terms were presented during the course of the unit, including specialization and division of labor, production, interdependence, opportunity cost, supply and demand, and earning and spending income. The basic subject of the project concerned the possibilities of underestimating the employment and leisure-time capabilities of handicapped students and the high cost to the general public when handicapped students were excluded. The students' experience with the chemical company that employed them; with the Muscular Dystrophy Association, for which they raised a considerable amount of money; and with the community proved the project was highly successful. Above all, the students had an excellent opportunity to be productive and to serve society and were able to participate in an exemplary project.

THOMAS P. KURTZ, a seventh-grade history teacher in the *Coral Springs Middle School, Coral Springs, Florida*, developed a project designed to organize the classroom as a business. Entitled "Disruption vs. Democracy," the unit utilized an economic incentive system to make the class as interesting and relevant as possible and to modify or influence classroom behavior. In organizing the project, all class work was assigned a dollar value as well as a grade. Students printed and distributed Class Cash, providing a tangible reward for academic achievements. The students could save Class Cash for monthly auctions, at which various prizes and privileges might be purchased, or buy Class Companies. The companies had the authority to sell pencils, pens, paper, library time, and other commodities in exchange for the cash. Better class control was obtained when the concept of fines was introduced as a disincentive to violating class rules. During the course of the project, students became bankers and bookkeepers and managed the clerical records associated with the unit. A bankbook was maintained by each student, which, in effect, provided an accurate progress report. Other activities included a class court, which heard cases. The project had three direct benefits. First, the financial aspects of it taught lessons which could be applied to real life; secondly, many interesting parallels were drawn between the economics in the classroom and the economics found in American history; and, finally, the students were eager to attend class. The subject matter came to life as a result of their acceptance of the many responsibilities associated with conduct in a middle school class. For the students who participated in the project, United States history and economics became more exciting, interesting, and realistic.

JOHN KALKA, a seventh-grade social studies teacher at *Shore Junior High School, Euclid, Ohio*, developed a unit designed to emphasize the fundamental problem facing all economic systems—scarcity. At the outset, the students were motivated through a moral dilemma to discuss whether the developed nations should share their wealth or keep it and become even richer? A version of triage, using "The Lifeboat Dilemma," was employed to begin class discussion. All the activities in the unit were focused on the complexity and magnitude of the world food problem. Research assignments, graphs of world cereal production, population growth, world fish catch, production-possibility frontier, and supply and demand were analyzed to provide important supplemental background information. Concern over the failure of food production to keep pace with population growth encouraged speculation on future efforts to grow and distribute adequate food supplies. At the end of the four-week unit, the student consensus was that assistance should be extended to the less fortunate people of the world. The project was included in the social studies curriculum of the Euclid public schools as part of a unit entitled "Life-Styles of Emerging Nations," in which comparisons are made between life-styles prevalent in the developed nations and those found in the emerging nations.

BEVERLY BROWN, a ninth-grade teacher of English at *Ashland Junior High School, Ashland, Ohio*, organized a unit called "How in the World Do I Apply Economics to the Teaching of English?" to combine instruction in basic economics concepts with vocabulary, literature, and composition. Initially, the students worked on the development of an economics vocabulary. Each Monday during the first four weeks of the unit, the students were given ten words to study. Following this, the students used the vocabulary words to play a game entitled "Money," which is patterned after "Bingo." Next, the students studied a unit called "Identity," taken from the *Insights* anthology. The short stories "Clothes Make the Man" and "The Confrontation" and the mininovel *When the Legends Die* led to a discussion on many economic issues and concepts such as wage standards, consumer boycotts, opportunity costs, and value added. The students gave oral reports, were assigned written reports, designed bulletin boards, and made posters on the issues and concepts. An important outcome of the unit was that the students learned the importance of economic knowledge in the search for personal identity. Students' research papers included such items as costs of training, wages, fringe benefits, and financial assistance for education in the study of careers. Significant to the project was the students' ability to relate the study of economics to vocabulary, literature, and writing.

DEBORAH B. ANDERSON and **ELOISE L. BOYER** of *Western Hills Junior High School, Cranston, Rhode Island* developed a consumer economic education curriculum called "Consumer Decision Making in the Marketplace." Approximately 360 ninth-grade students were enrolled in this required one-year course that was designed to introduce students to the basic concepts, attitudes, and skills they would need to act as rational consumers in the marketplace. Students were of varying ability, and classes tended to be heterogeneously grouped. The course was aided by a federally funded grant provided by the Vocational Education Office of the Rhode Island State Department of Education. The course conducted primarily through teacher-prepared activities, multimedia materials, field trips, guest speakers, and other commercially and privately funded resources. Careful and extensive pre- and post-testing was carried out to measure changes in student attitudes as well as knowledge of consumer economic concepts in the following ten categories: (1) basic economics in the marketplace, (2) banking skills, (3) credit, (4) comparison shopping, (5) responsible budgeting, (6) insurance, (7) taxation, (8) the economics of energy and ecology, (9) advertising, and (10) consumer law and protection. After participating in this program, the students achieved a 25 percent increase in their understanding of the basic concepts in categories included in the tests. The teachers developed a flexible curriculum guide: it can constitute a one-year course if the class meets twice weekly or a semester course if the class meets five times a week. Teachers can also use the lessons for each category as individual units that could be incorporated into an already existing course—i.e., home economics, science, math, social studies, etc. The guide also provides individual lessons dealing with various consumer economic concepts such as scarcity, supply and demand, opportunity cost, etc. This curriculum includes a pre- and postattitudinal survey, pre- and post-tests for each unit, and activities, readings, and quizzes. The teachers use a multitext, multimedia approach and include a list of suggested resources—pamphlets, audiovisual materials, commercially prepared activities, and possible field trips and guest speakers for each topic.

CHAPTER FOUR

From Friedman to Galbraith: A Method for Teaching Students to Analyze Economic Proposals Critically

Diane Elizabeth Keenan
West High School, Redondo Beach, California

Background

This is a three-week unit, the final one in a twelfth-grade economics course I teach. The unit was developed for a regular course, an elective open to all seniors and acceptable to satisfy graduation requirements. Most of the students who take the economics course go on to either a two- or four-year college.

I am enrolled in a master's program in economics, and have tried to share some of my reading with my students. My experiences have led me to believe that seniors are quite capable of handling some fairly complex ideas and are fascinated and challenged by them. My procedure has been to take the students step by step through the course so that at its end they will be able to comprehend articles on economics and evaluate various proposals and policies suggested by contemporary economists.

I should say that I have a personal concern about the bias and one-sidedness of some of the economic education materials available. Too often, only one perspective on an issue is given, and students are not challenged to do any analytical or critical thinking. This unit, and my overall approach in my economics class, is an attempt to remedy this problem.

Introduction

When a student asks, "What causes inflation and what can be done to control it?" how will you, as an economics teacher, respond? Obviously, Milton Friedman would answer that question differently than would John Kenneth Galbraith. Which viewpoint would you give your students? Why not expose your students to differing economic perspectives? I believe that senior economics students, soon to be voters, should be presented with a wide spectrum of arguments and proposals on controversial economic issues. I also feel that students at this level can be taught critical-thinking techniques to help them evaluate, judge, and select economic proposals.

The final unit in my senior economics class at West High raised the question of what policies the United States should pursue in order to promote economic growth and price stability. Can a revitalized free-market economy accomplish this or will more governmental involvement be necessary? The students were presented with the views of four current economists representative of conservative and liberal schools of thought—conservatives: Milton Friedman (monetarist) and Arthur Laffer (supply-side); liberals: John Kenneth Galbraith ("cost-push" role of large corporations and labor unions) and Lester Thurow (desirability of more equal distribution of income). As a class we studied the arguments presented by each economist, the evidence cited, whether or not the evidence was convincing, what values and assumptions underlay these arguments, and the benefits and costs of each proposal. The purpose of this final unit was to promote critical thinking and decision making, to teach students to evaluate economic proposals they may confront in the future, and to stimulate students to read further about economic issues and ideas.

Goal

The purpose of the lesson was to help students develop the skills in critical thinking to evaluate a wide variety of current economic ideas and proposals. The more specific objectives were:

1. Students should be able to list the main points of an article written by an economist;
2. Students should be able to describe the evidence used to support the economists' arguments and to raise questions about the strength of that evidence;
3. Students should be able to see that any economic proposal is based on certain underlying values and assumptions;
4. Students should be able to analyze the benefits and opportunity costs of each proposal made.

My personal goal as a teacher was to expose my students to samples of current economic thinking, to stimulate debate about current economic issues, and to create an atmosphere in the classroom where students felt free to come to their own conclusions.

Teaching Procedures

Throughout the semester I had been preparing my students for the final unit. They were all aware that there were differing economic viewpoints on controversial economic issues. When questions came up, such as: What caused the depression of the 1930s?, I had given them several perspectives, ranging from Milton Friedman to Karl Marx. Prior to the final unit we had studied the problems of inflation, economic growth, and unemployment. As we dealt with these issues, students naturally came to the questions: What can be done, how can the U.S. reach the goal of economic growth, of price stability?

I began the final unit by explaining that we had studied the problems of inflation and slow economic growth and that it was now time to take a look at some policy proposals being made by several contemporary economists. I put the following chart on the board:

Conservative		**Liberal**	
Monetarist	*Supply-side*	*Cost-push*	*Income distribution*
Milton Friedman	Arthur Laffer	John Kenneth Galbraith	Lester Thurow

Our next activity was to analyze each critically, with the expectation that students would ultimately decide which economist they felt made the best economic proposals.

After the initial overview, I showed Part One of Milton Friedman's *Free to Choose* film series. The program served as a good opener to the discussion of the free-market and the monetarist viewpoint, and gave students their first opportunity to critically evaluate an economic argument. I then had the students discuss four questions that would serve as our method for evaluating all the economists:

1. What were the main points made?
2. What evidence was presented and was it convincing?
3. What values and assumptions were used to support the argument?
4. What were the benefits and costs of the proposals?

In studying the views of the four contemporary economists we proceeded as follows.

1. Distributed reading materials
   "There Is Only One Cause for Inflation," *Los Angeles Times*, 1979, Alchian
   "What Supply-side Economics Means to You," *Readers Digest*, May 1981
   "On Inflation," *Consumer Reports*, February 1979, Galbraith
   Chapter 1 from *The Zero Sum Society* (Basic Books, 1980), Thurow
2. Analysis of the arguments by the class
3. Completion of the worksheet (see below)
4. Quiz on the economists

5. Assignment for which students bring in news articles or cartoons relating to the economists' ideas
6. Discussion of the reading materials and general reactions to the arguments they contain

The easiest task for the students was to list the main ideas of the economists. The goal of the lesson, however, was to go deeper and to critically evaluate the arguments. Thus, students were asked to raise questions about the evidence presented—i.e., Is the evidence convincing? What additional evidence is needed to make the argument convincing?

Further, I wanted the students to see that all the economic proposals were based on certain assumptions that each student should decide are realistic or not. I used a variety of questions to help the students deduce the underlying assumptions. For example, in discussing the monetarist viewpoint I asked:

- What happens to the demand for houses if interest rates are high?
- If the demand for houses is down, what does the monetarist assume the price of houses will do?
- Does the monetarist assume that prices are flexible (do they quickly respond to supply and demand or not)?

After discussing the views of all four economists, we came up with a table of basic differences in values and assumptions between the conservative and the liberal economists (Figure 1). Students were asked to weigh the benefits of the economic proposal of each economist against its costs. I wanted to make clear to the students that all four proposals would involve costs and that part of their decision-making would include deciding which costs they could best accept.

FIGURE 1

FREE-MARKET-CONSERVATIVE (Friedman, Laffer)	**LIBERAL** (Galbraith, Thurow)
VALUES	
• Economic liberty	• Economic equity
• Private sector solutions to economic problems	• Public-sector solutions to economic problems when private sector fails
• Individual responsibility	• Social responsibility for others
ASSUMPTIONS	
• High degree of competition	• Imperfect competition
• Price and wage flexibility	• Price and wage rigidity

After studying all four economists, students completed a worksheet on each. Here is an example of a completed worksheet for the monetarist position:

WORKSHEET #1

Main Points of the Reading (monetarist perspective)

1. The only cause of persistent inflation is a too rapid increase in the money supply.
2. The Federal Reserve, under pressure from Congress, is responsible for allowing too much money in circulation.
3. The principal way to control inflation in the short run is to tighten the money supply sufficiently to stabilize the general price level. (For the long run, monetarists believe that inflation—and business cycles—can be avoided by increasing the money supply at the same rate as the potential long-term growth of the economy.)

Evidence

1. There has historically been a high correlation between money-supply growth and inflation.
2. Data shows that even some countries that were highly dependent on foreign oil when its price was increasing rapidly managed to keep their inflation rates low.

Assumptions

1. The monetarists assume a basically competitive economy, with prices responding rapidly to changing demand.
2. Monetarists assume that there is a unique and very strong causal connection between changes in the growth of the money supply and changes in the general price level. In other words, the money supply is essentially the only systematic determinant of the price level.
3. Monetarists assume that steady and strong economic growth cannot occur if inflation is not under control.

Costs

1. Tight money policies may cause recession and unemployment.
2. Some groups suffer more than others from unemployment—i.e., minorities, women, teenagers.

After studying the ideas of each economist, the students were given a short quiz and asked to bring in news articles relating to each economist's ideas. The purpose was to show students the relevance of these ideas and to require them to relate the ideas to current events.

As we concluded the unit, students developed a chart (Figure 2), in order

FIGURE 2. SUMMARY OF POSITIONS OF FOUR ECONOMISTS

Main Point	Evidence	Assumptions	Proposals	Costs
Monetarist Position				
inflation caused by too large an increase in the money supply	high correlation between money supply growth and inflation	price flexibility and high degree of competition	tight money policy until inflation brought under control	slow economic growth or recession until inflation is controlled certain types of workers more adversely affected than others
Supply-side Position				
inflation caused by too small a supply of goods and services	previous (1962) tax cuts stimulated growth	increase in investment will follow tax cut unemployed will be hired increases potential for economic growth	personal and business tax cuts to stimulate production	loss of federal revenue short-run deficit possible increase in inflation

		Cost-push Position		
inflation due to power of corporations to control prices and of unions to control wages	failure of monetary policies to bring inflation down without causing stagflation, as in 1974–75 recession	price rigidity imperfect competition	price and wage controls in noncompetitive sectors of economy	possible shortage of goods renewed inflation whenever controls are removed
		Income Distribution Position		
inevitable government involvement in equity issues	cases of groups seeking governmental help to prevent economic loss (Chrysler, Lockheed, Penn Central Railroad cases)	people desire economic security price rigidity	government should compensate economic "losers"	higher taxes on high incomes possible loss of incentives to produce government would be involved in complicated redistribution of income issues

to summarize the viewpoints of the four economists whose positions were critically analyzed.

Evaluation

Throughout the lesson, students were quizzed on the position of each of the economists. In the final activity, students were asked to decide which economist made the best proposals for the United States. The students were then assigned one- to two-page position papers addressed to these questions:

1. Which economist makes the best arguments and proposals and why?
2. What assumptions underlying this argument do you feel are realistic?
3. Why do you prefer the proposals of this economist over those of the other three?

We concluded with a discussion of the position papers. Many students felt the economists' initial values and assumptions were most important in determining whether their arguments and proposals were convincing. Students also found that deciding among the four policies involved choosing the least harmful costs. Students rejected particular proposals because they could not accept the cost inherent in them.

Class discussions were lively as lines were drawn between "liberals" and "conservatives," while a group of uncommitted students listened to both sides. I felt that I had achieved my major goal of encouraging students to come to their own conclusions in an atmosphere in which all viewpoints could be expressed.

Forecasting with a Follow-Up

Thomas W. Mullane
West Essex High School, North Caldwell, New Jersey

High school seniors in West Essex High School who were enrolled in four classes of a full-year course in economics were given a two-week unit in economic forecasting. The unit had been preceded by an extensive study of fiscal and monetary policies.

Organized in groups of four, the students—most of whom were college-bound—were asked to examine and characterize the state of the economy, consider recent proposals for change in economic policy, and estimate the particular effects of policy changes as well as their impact on the total economy.

Students then wrote position papers forecasting the economy's performance in 1981 and 1982. The students made specific predictions for inflation, unemployment, the gross national product, and the Dow-Jones Industrial Average at the end of each year, and had to justify these predictions.

The forecasts were condensed into two pages and mounted on plaques, which were placed on the classroom wall. At the time of this writing, we are looking forward to visits from seniors who have graduated and will return to see how accurate their efforts in economic analysis and forecasting were.

Goals of the Unit

1. To give students an exercise in economic analysis;
2. To bring students' attention to varied schools and points of view in economics;
3. To have students use and study data and economic statistics at firsthand;
4. To permit students to gain respect for and awareness of the complexity of an economist's responsibilities;
5. To remind students that economics is also the study of "political economy;"
6. To have students learn by doing in a heuristic fashion;
7. To reinforce student understanding of fiscal and monetary policies;
8. To establish an atmosphere in which students undergo the quasi-Talmudic training of defending, discussing, and debating their findings;
9. To instill in students a disposition to continue their interest in economic analysis;
10. To induce students to return from college for a visit with succeeding economics classes.

Description and Procedures

Chapter 20 of our text (*Economics*, Daniel R. Fusfeld, D.C. Heath & Co., 1976) is entitled "Economic Policy and Economic Performance 1945-1974." It summarizes such events and subjects as the rapid economic expansion of the postwar years, the "new economics" of the 1960s, the trade-offs between unemployment and inflation, and the political use of economic policy. Included in the text are a series of graphic presentations showing changes in GNP, government spending, unemployment, and the Consumer Price Index, up to the year 1974.

To supplement and update the text, I prepared a lecture on the puzzle of stagflation, the movement of the Phillips curve, and I supplied later data on the economy through 1980. The lecture concluded with a reminder that our text (Fusfeld) stressed a post-Keynesian synthesis, whereas the most controversial current theory is "supply-side economics."

The essence of the new theory was presented in newspaper and magazine articles on the Kemp-Roth bill and the Laffer curve. In summary, supply-side economic theory holds that lower taxes will encourage investment and production, thereby leading to greater tax revenues and fuller employment, with less inflation.

Next, it was announced to all classes that they would now be expected to project the performance of our economy for the next two years.

The initial response and reaction in all classes was somewhat surprising and disconcerting. They were extremely uncomfortable and reluctant to commit themselves to a forecast. Upon reflection, I believe this was because students do not like uncertainty. They seemed to prefer going to the text to find "the right answer."

To alleviate their concerns and induce more enthusiastic participation, I did several things.

1. Provided a list of readings and reprints covering the general topic. These included:
    a. An article from the December 15, 1980 *U.S. News and World Report*, "Prosperity Without Inflation," that had interviews with four Nobel prize-winning economists – Milton Friedman, Lawrence Klein, Kenneth Arrow, and Paul Samuelson;
    b. Four articles by Leonard Silk, whose column appears on Wednesdays and Fridays in *The New York Times*;
    c. Three columns each by Paul Samuelson and Milton Friedman from *Newsweek*. They, of course, have contrasting points of view.
2. Covered the walls with pages from the *Wall Street Journal*, the business section of *The New York Times*, *Business Week*, *Time*, and *Economic Road Maps* from the Conference Board, all containing material relating to economic forecasts;
3. Secured from parents and friends dozens of copies of recent issues of *Fortune*, *Business Week*, and the *Wall Street Journal* and placed them on a table available to all;
4. Divided students in each class (the four classes totaled 140 students) into groups of four. Each group was to organize its own research and write a joint report;
5. Introduced students to the data bank of current economic statistics that appears in the business section of each Sunday's *New York Times*;
6. Instructed all groups to make four specific predictions in addition to their overall analysis. The four were to be year-end figures for 1981 and 1982 for GNP, unemployment, inflation, and the Dow-Jones Industrial Average;
7. Accompanied these directions and instructions with a short lecture on forecasting as a major responsibility of many professional economists;
8. Announced that all predictions would be recorded and reviewed at an alumni reception in December 1981 and December 1982. Parenthetically, I should note that we conduct, through our student government, an alumni reception each December. It includes classroom visits by alumni who

describe their college programs, social life, and problems in general, and usually offer advice of a constructive nature;

9. Took up the political environment in which economic decisions are made. As the student groups began their deliberations and I my observations, a problem became apparent. There was need for some discussion and clarification regarding the then current budget and tax proposals emanating from the Reagan administration. We reached a general understanding in each class that uncertainty about the economy is compounded by the workings of the political process. Therefore, predictions have to be adjusted for best-guess expectations of congressional actions;
10. Provided four class days for research, reading of materials, discussion, and reaching a consensus in each group. Frequently, as differences became apparent and heated, I suggested that a dissenting minority opinion could be written. It never happened, however. The classes asked for one more day and a weekend to finish their final papers.

All groups turned in reports and made their predictions. Happily, the initial reluctance to take a stand was replaced by a competitive feeling.

At the outset, I stated that the entire project would be marked merely on a pass/fail basis. The only way to fail would have been not to do the work. At the conclusion, many of the students, obviously proud of their efforts, raised the question of grades, but I held to the original "deal."

We tried to produce a stimulating memento of the exercise. A very compact typing job reduced all the predictions of the groups onto two sheets of paper. Our industrial arts department prepared two plaques on which we mounted the predictions by decoupage. Thus, we were able to display on the wall our "fearless forecasts," and to keep them for review in December 1981, and again in December 1982. In a way, the names on the wall were analagous to seeing one's name in print. All the students came forward to see the plaques and compare the predictions on them. A stimulation of interest in economics was also apparent as students from other classes came in to examine the plaques.

Concluding Comments

I expect that next year's classes will repeat the project. They will also benefit from more visits and "lectures" from "economists" returning from college.

I was stimulated to further reflect on this unit by an article in the June 1981 issue of *Phi Delta Kappa*, "Reflections on the Fate of the 'New Social Studies'" by Thomas J. Switzer (p. 729). Professor Switzer, drawing upon his own experiences as well as those of Edwin Fenton, raises the question of adequate "antecedent conditions," which he feels are not provided for students attempting independent inquiry. He does not go so far, however, as to dismiss the inquiry method.

I had consciously used the ideas of Ausubel in providing the Advance Organizer, i.e., the concepts relevant to fiscal and monetary policy. This proved insufficient, for it was not possible to simply say to these relatively high level, college-bound twelfth graders: "inquire." Additional help—structuring of the approach, guidance, and materials—was necessary. Once the readings were suggested, the problem had been narrowed and analyzed, and the goals established, purposeful work began. I believe that substantial learning took place, and I am sure the students found it an enjoyable experience.

Next December, when my former classes return as homecoming graduates, I should be able to determine whether or not the effects were memorable and lasting.

Economics in U.S. History: Using Living Museums

David E. O'Connor and Joanne Foley
Edwin O. Smith School, Storrs, Connecticut

Introduction

The premise that economics is for everybody stimulates us to incorporate several key economic concepts into the required U.S. history and American studies courses at our school. To shed the image of economics as a "dismal science" and to bring economic concepts to life, a field trip to Old Sturbridge Village, a living museum, was planned.

A heterogeneous group of thirty-seven sophomores, two University of Connecticut interns, and two U.S. history teachers at E. O. Smith were given preparation, through a series of individual and group activities, for a program entitled "Choosing Work—Making a Living" at the village. Because the program could accommodate only thirty-seven students out of a class of 200, it was decided that the final activity should be one that could be shared with all sophomores in the history program. An audio-slide show based on the data collected by students and from published texts was the means of sharing the experience. The presentation included a worksheet, inquiry cards dealing with the "wants-satisfaction chain,"[1] pretests and post-tests to measure student learning, and the use of a teacher's guide. As a DEEP cooperating school system we were eligible for grant money from the University of Connecticut Center for Economic Education to defray costs for participants in the museum visit.

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[1] The "wants-satisfaction chain" used in this unit is adapted from the model originally outlined in *Economics in Society, Strategy and Methods*, by Suzanne Wiggins Helburn et al. (Reading, Mass.: Addison-Wesley, 1974).

The unit's goal is for the student to recognize the enduring nature of fundamental economic concepts and that the basic economic questions of the early nineteenth century are the same ones facing us today. Sepcifically, the student should:

1. Define, distinguish between, and give examples of productive resources (land, labor, capital, management, technology);[2]
2. Recognize that relative prices and changes in them result from the interaction of supply and demand, and that there are relatively frequent changes in price relations in a modern market economy;
3. Outline the wants-satisfaction chain, and recognize why production takes place (to satisfy a demand), how it is achieved (with use of productive resources), and that some businesses succeed (because they compete successfully for the consumer's patronage) while others fail;
4. Understand that the type of economy in existence at any given time and place depends on history, current events, type of culture, and the level of technological development.

In addition to understanding these economic ideas, students were acquainted with use of a decision-making model. This skill, coupled with the concepts, should enable them to make reasonable economic decisions.

Recommended Use

The four-period unit designed for the high school sophomore history program might also be suitable for:

1. U.S. history/American studies;
2. Problems of democracy/Contemporary issues;
3. Economics;
4. Sociology.

Organization and Teaching Procedures

Because the thirty-seven students in the program were from seven different U.S. history and American studies classrooms, it was impossible to convene them at regular intervals to prepare them for the trip. It was necessary,

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[2] Though economists may have differing opinions as to whether technology and/or management should be called independent "productive resources," few would argue that these factors do not have a major impact on production. Conventionally, management is considered part of "labor" resources, technology part of "capital" resources.

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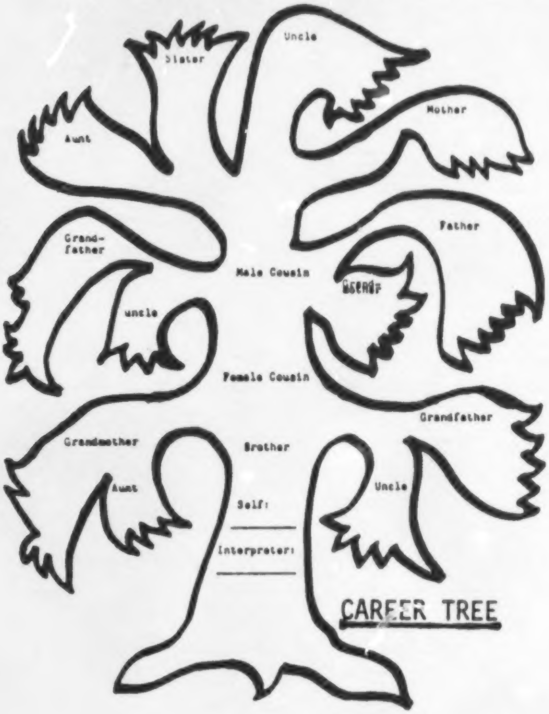
Uncle
Sister
Aunt
Mother
Grand-
father
Father
Male Cousin
Grand-
mother
uncle
Female Cousin
Grandfather
Grandmother
Brother
Aunt
Uncle
Self:
Interpreter:
CAREER TREE

FIGURE 1. CAREER TREE
Directions: Insert appropriate career for each member of family (as applicable).

therefore, to give them "warm-up" activities a week prior to the trip in the form of homework. These activities included two tasks.

The first was to fill in a family "career tree" (see Figure 1). The purpose of the career tree was to study the occupations of the student's own family in order to discover any regularities or patterns within it. Sex roles, levels of education, and types of occupations—by generation—were among the points observed. One of the four groups at Old Sturbridge Village would later repeat this procedure using information provided by their "interpreters from the nineteenth century."

The second task was to fill in a decision-making chart (see Figure 2). Aside from naming the skills involved in determining specific criteria for job attractiveness, students were asked to evaluate a number of twentieth-century occupations using these criteria. Again, one group at the village would use this model to examine the family histories of the "interpreters from the nineteenth century."

	CRITERIA								
ALTERNATIVES (Occupations)	1	2	3	4	5	6	7	8	Totals
1.									
2.									
3.									
4.									
5.									
6.									
7.									
8.									
9.									
10.									

FIGURE 2. DECISION-MAKING CHART

These two activities were designed to provide personal relevance to the topic of twentieth-century career options and demonstrate a method by which alternative careers could be evaluated. The student responses were discussed during a single fifty-minute class period scheduled prior to departure time on the day of the trip. Students were also shown a transparency of the village layout, given a map of the museum, and provided written instructions concerning their individual and group tasks, roles, and responsibilities during the trip.

The second, or "developmental," stage in this four-period unit occurred at Old Sturbridge Village. Students collected data for use in the audio-slide presentation and were assigned to one of four groups, each consisting of nine or ten students.

Group I: Took slides, prepared audiotapes, served as reviewers for the slide presentation, and focused on productive resources, wants-satisfaction chain, work, and leisure.

Group II: Designed an original advertisement for the places of business visited on the tour (one advertisement per student).

Group III: Devised a "career tree" for each of the nineteenth-century interpreters visited at the village (one career tree per student).

Group IV: Filled in a decision-making chart to evaluate the relative attractiveness of village occupations (students selected the occupation that seemed most attractive, using nineteenth-century criteria).

During this stage, students' questions were answered by the accompanying E. O. Smith teacher or University of Connecticut intern, the village guide assigned to each group, or by interpreters along the tour.

Wrap-Up

Trying to tie together this experience was the most challenging aspect of the unit—and one which prompted the idea of the slide show. Participants came from seven different classrooms and varied widely in skill and ability levels. We also had to remember that a majority of those viewing the presentation were not among the original participants in the program.

Our task was to challenge the brighter students while not leaving the slower ones behind. In addition, this final activity needed to contain new information so as not to bore the original thirty-seven participants. The slide show attempted to accomplish these goals by giving the viewer an active role. The student was required to complete a worksheet on economic concepts. Additional notes made during the post-viewing discussion could supplement the original ones. The student also had to take a pretest, which allowed us to determine student knowledge and also served to introduce the next phase. A pause during the slide presentation permitted the class to discuss and correctly order the elements of the wants-satisfaction chain—see Figure 3. (Students were told at the beginning of this lesson that they would be tested on what they had learned.)

The contents of the slide show "Work and Leisure at Old Sturbridge Village" were:

Section I: Credits for the show

Section II: Basic economic questions
a. What to produce? (wants, GNP, consumer goods and services, investment goods, government services)
b. How to produce?
c. For whom to produce?

Section III: Old Sturbridge Village answers the basic questions

a. What to produce? (scarcity and choice, consumer demand, available supply)
b. How to produce? (land, labor, capital)

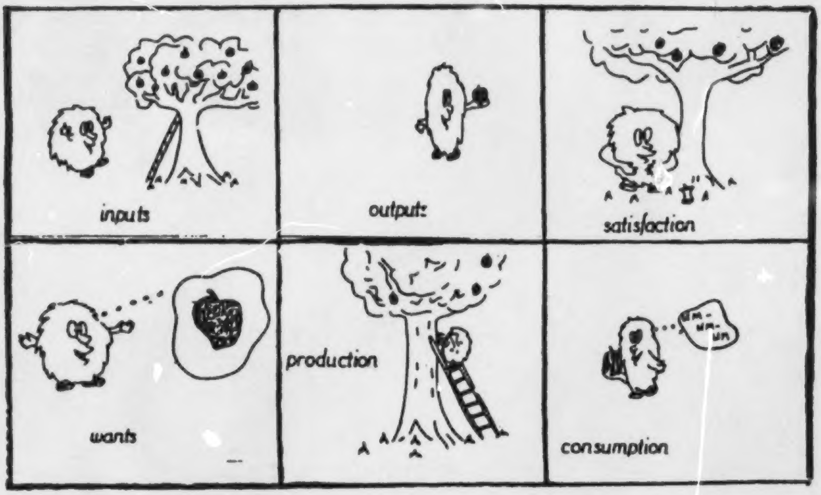

FIGURE 3. THE WANTS-SATISFACTION CHAIN

c. For whom to produce? (wants-satisfaction chain, barter or markets and money, advertising and demand)

Evaluation and Conclusion

For the thirty-seven participants, evaluation took place at each stage of the four-period unit ("period" includes the time spent at the museum). Participants were responsible for completing the tasks in the various stages (career tree, decision-making model, group work at the village) in addition to the slide show worksheet and the pre- and post-tests. A comparison of the results of forty randomly selected sets of pretests and post-tests showed marked improvement in student scores on the second test. Average scores improved from 70 percent correct on the first test to 82 percent on the second. A closer analysis shows that 73 percent of the students in the sample performed better on the post-test, 10 percent showed no change, and 17 percent did worse.

There was also informal evaluation of the participants and of the sophomore class as a whole. The spirited questioning and involvement led us to conclude that high interest was generated by learning economic concepts in a U.S. history class. Although the fact is difficult to pin down, students' attitudes did not seem to reflect a "dismal science" image of economics; the project seemed to be accepted as useful, even interesting. This, as one might expect, was especially true of those who visited the museum.

Museums, especially living museums, can provide a vital educational service. To share the experience of the nineteenth-century interpreters was truly "the next best thing to being there." With "work" as the focus of the inquiry, students were able to make comparisons through time and over cultural barriers. The continual relevance of the basic economic questions was also demonstrated. The combination of activities at the museum and in the classroom transformed abstract concepts into live and concrete ones. Our project proved to be an excellent way to bring economic concepts home to students.

Cheese Bits – Our Biz?

Economics Unit for a High School First-Year Accounting Class

Sister Marion Joseph Gerl
St. Joseph Academy, Green Bay, Wisconsin

Introduction

One of the objectives in my accounting course is to develop in students an economic understanding of how business operates. To carry this out, I looked for a type of business my students would find interesting as well as stimulating.

It is desirable that students know the chief products made in their area and who produces them. In Green Bay, Wisconsin, in the surrounding area, and, in fact, in the whole state of Wisconsin, the making of cheese is of utmost importance.

Cheese is everybody's business in Wisconsin. Among others, it involves producers (farmers, milk haulers, cheesemakers, packagers), traders, and government officials. The National Cheese Exchange, located at 1658 Morrow Street in Green Bay – the only marketplace of its kind – is where cheese buyers and sellers transact business in volume. The prices paid for cheese on Friday (a trading session takes place every Friday morning between ten and ten-thirty) are a barometer for the industry. Because many people are unaware of these facts, I decided to have the students in my two accounting classes study cheesemaking and the many economic ramifications of the industry.

At St. Joseph Academy – an all-girls school operated by the Sisters of St. Joseph of Carondelet – my two accounting classes had a total of twenty-seven twelfth-grade students, heterogeneously grouped. They undertook the cheese project during the second semester of the 1980–81 school year.

"Time out for cheese" was taken when something related to the project occurred. Some examples: the erection of a building by the Bemis Company in which to manufacture machinery for wrapping cheese, bacon, etc; work on a milk price support bill in the state legislature. All such developments relating to cheese have an important economic impact on the region.

Background

In order to ascertain how much economic knowledge my students had, I gave them a pretest: *Economic Understanding (12th Grade) – Traditional Economics* (Wisconsin Department of Public Instruction, Madison, 1980). At the time, five of the twenty-seven were enrolled in a first-semester consumer economics class. The other twenty-two had taken a course neither in consumer economics nor in economics. Seventeen out of twenty-seven had passing grades on the pretest, but most were low. Consequently, I concluded that something needed to be done to improve the students' background in economics. (I gave a post-test when the project ended.)

Goals and Activities

The project had the following goals or activities:

1. To promote interest in economics through the study of a major business in the local community;
2. To study the economic benefits resulting from cheesemaking and the Campbell wrapper machine;
3. To learn about alternative ways to do business, with emphasis on cooperatives;
4. To have the students read newspapers in order to keep up with current events pertaining to milk and cheese;
5. To learn how a bill to *skip* a scheduled increase in milk price support became law;
6. To witness a session of the National Cheese Exchange in Green Bay and to learn from it;
7. To take a field trip to Consolidated Badger, a cooperative in De Pere, Wisconsin. (As an aid to observation, the students used a questionaire about an economic field trip devised by George Fersh, former associate director of the Joint Council on Economic Education);
8. To have students contribute materials relating to the project for posting on the bulletine board;
9. To assign students to make flow charts on the following subjects: The Economic Benefits of Cheesemaking; The Economic Benefits of the Campbell Wrapper Machine; Decision Making: Things to Think About in Starting a New Business;
10. To give students a matching test based on twenty-five definitions taken from the economic vocabulary terms students kept in their scrapbooks;
11. To have students save candy bar wrappers in order to help finance a 3-C (cheese, coke, and cracker) party, as well as to fund prizes for the two best scrapbooks;
12. To administer a pretest and a post-test.

Organization and Procedures

Students were required to keep scrapbooks containing the following:

1. A list of eighty-four economic terms and definitions and an additional list of terms used in cheesemaking. Students were reminded to study the economic vocabulary periodically in order to prepare for a matching test on twenty-five definitions;
2. A copy of "Helps to a Better Economic Understanding of Concepts," which was used in the pretest;
3. The article "Entrepreneurship: Starting a New Business and Case Studies," furnished by the National Federation of Independent Business. It contains material on decision-making concepts, which are important in accounting. In fact, the end of every chapter in our accounting textbook has cases that require decision making. The students constructed a flow chart entitled "Things to Think About in Starting a New Business" with emphasis on motivation, preparation, and capital, as well as on decision making;
4. A list of alternative ways to do business in an economic system. It included the cooperative form of business organization, a form prevalent among cheese producers in Wisconsin;
5. A manuscript entitled "Wisconsin Cheesemaking Has Colorful History—Began in the 1800's," by Al Breseman, dairy product specialist in the Wisconsin Department of Agriculture, Trade, and Consumer Protection. The article was used as the basis of a poster as well as a set of flowcharts titled "Economic Benefits: Flow and Ripple from Cheesemaking." The poster contains a statement that when the dollar value of the economic benefits of cheesemaking is multiplied by the regional multiplier (between 2.5 to 2.8) the result is surprisingly large. (The regional multiplier indicates the amount of income or employment generated as a result of each additional dollar of new spending in the immediate area or community);
6. Excerpts from the article "Campbell Wrappers," written by Carl J. Gerlach, former chief engineer of Hudson Sharp Machine Company, Green Bay. A flow chart and poster showing the many economic benefits this machine provides were made;
7. Newspaper clippings (and pictures) pertaining to milk, cheese, the milk price support bill as well as recipes containing cheese. Students were asked to underscore the main points in the articles and/or comment on them.
8. The article "Small-Business Performance in the Regulated Economy," by Kenneth W. Chilton and Murray L. Weidenbaum.

Related Student Activities

A poster and a flowchart about the process of decision making by consumers, producers, and the government were used. To provide an example of the federal government as a decision maker, students prepared a poster depicting how the bill to skip the April 1, 1981 increase in milk price supports became law.

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Another poster contained four pages of interesting facts about cheese titled "Cheese Bits—Our Biz." "Cheese Bits" included information about such things as the world's largest cheese; it was made in Wisconsin and displayed at the World's Fair in New York City.

Students were asked for suggestions—including sales promotion ideas and advertising slogans—to advance the sale of cheese. One slogan read, "Cheese, coke and crackers delight many snackers."

A 16-mm film, *Wisconsin Cheese for All Seasons* (free from the Wisconsin Department of Agriculture), was shown to the two accounting classes, and to members of the home economics food class.

The students were taken to the National Cheese Exchange in Green Bay. Since there was no trading activity on that particular day, the president of the exchange provided a simulation of what would have taken place had there been bidding, buying, and selling. He explained that when no trades take place on a trading day, the probability is that general economic conditions are unfavorable or that the government had a surplus of cheese on hand. He also said that because the milk price support had not been increased, more stable prices for cheese were likely, which would probably help increase cheese consumption. Had the milk support price increased, cheese prices would have gone up and cheese consumption would have gone down.

A second field trip was made to the Consolidated Badger Cooperative in De Pere, Wisconsin. The Center for Economic Education of the University of Wisconsin at Green Bay provided us in advance with several booklets and reports, including proceedings of the March 1980 workshop on cooperatives. The booklets strengthened the students' background on cooperatives in preparation for the field trip.

Near the project's end, the students were given a matching test on the economic terms and definitions in their scrapbooks. The scores—an average of 88.3 and a median of 92—were a factor in determining their grade in accounting.

Students saved candy-bar wrappers (the large ones) from Milky Way, 3 Musketeers, Snickers, and Mars Bars, which were sent to the Mars Company for refund checks of two dollars for twenty-five wrappers. The funds helped finance the cheese, coke, and cracker party held during the last week of school.

At the party, the students with the two best scrapbooks were given awards, and each accounting student was given a Certificate of Participation in the project and an autographed copy of my copyrighted term paper guide.

Evaluation

Students learned some important economic concepts, as shown by a comparison of the post-test grades with those of the pretest. The arithmetic average of the pretest scores was 69.5, the median 72. The arithmetic average of the post-test was 86.4, the median 94. The students were delighted to see how much they had improved.

As students read the local newpapers looking for anything related to milk, cheese, and cheese recipes (including pictures), they reported having recognized words with which they had become familiar by studying the economics vocabulary. They said this gave them a better understanding of the articles.

"Cooperatives" appears in the last chapter of our accounting textbook. It helped our study of Wisconsin's cheese industry and made the studying more interesting. Most cheese producers in Wisconsin are members of cooperatives.

The process of deciding on the milk price support bill in the legislature offered a good example of how a bill becomes law.

Students evaluated the project in a very positive fashion since it gave them a better appreciation of Wisconsin's cheese industry and the hard work of the farmers engaged in the production of milk for cheese-making. It also helped them to understand the amount of effort needed to preserve a family-type business—a form of organization that helps assure the stability of families and the preservation of small business enterprises.

GOOD IDEAS IN BRIEF: SENIOR HIGH SCHOOL

ANITA S. BONEBURG, a home economics teacher at *Lincoln-West High School, Cleveland, Ohio*, developed a unit using a mini-flea market as a motivational tool and springboard to introduce key economic concepts in a class on independent living. Entitled "Independently Speaking," the unit demonstrated that economic concepts have positive effects when the classroom activities involve student contributions and action. The unit's goals were consistent with the graded course of study approved by the Cleveland Board of Education for home economics classes.

The purpose of the unit was to encourage students to analyze their roles, rights, and responsibilities in the marketplace and to provide them with experiences in making short- and long-run decisions on how to earn and use money. A flea market was the key activity, since it provided opportunities for students to learn how to organize such an event and to understand how to convert unused or old items into income, thereby increasing the student's purchasing power. In addition to providing a firsthand glimpse of a market situation, such concepts as scarcity, supply, demand, wants, and trade-offs were emphasized. The flea market, a student-owned business, was used for instructional strategies, including games and simulations, use of classroom speakers, field trips, lectures by teachers, and reading assignments based on the content-reading approach developed by the Cincinnati public schools. The key factor to success was student participation and involvement. All indications showed that the class improved its understanding of basic economics concepts and how the American economy functions.

DOROTHY A. BARRETT, a social studies teacher at *West High School, Mankato, Minnesota*, developed a twelve-day simulation that used the accumulated social and natural science skills of her twelfth-grade classes. The unit's theme, "If We Do Not Learn from History We Are Compelled to Relive It," was keyed to the year 2000 and incorporated three assumptions: (1) supplies of fossil fuels will continue to fall; (2) transportation needs will not diminish because of increased interdependence within our nation and world; and (3) foreign trade will be vital to U.S. self-interest and to help us be more competitive in the world market.

The activity focused on an investigation of the rebuilding of our conventional railroad system. Students researched proposals for unconventional trains capable of speeds ranging from 300 mph to several thousand mph. A student task force was organized to hear the pros and cons of the various rail systems and to listen to students playing the roles of economists, sociologists, labor union representatives, inventor-researchers, business people, and promoters. The task force then made recommendations addressed to the following points:

1. Should the United States begin planning for an improved, efficient, and reliable system for passengers and freight?
2. What type of system should it be?
3. How will it be paid for and managed?
4. What, if any, responsibilities will the government have?
5. What are the economic implications of the decision—principally, the social costs versus the social benefits?

LOIS M. RHODES, a social studies teacher at *Broadway High School, Broadway, Virginia*, organized a unit that integrates the study of local government with economics for her eighty-five students in U.S. government. The unit, entitled "H-E-R-E'S Rockingham," was presented to a diverse group of seniors, ranging from the educable mentally retarded to the gifted. In examining the duties of a school board and a board of supervisors, the budgets of both were analyzed in respect to local tax structure, state and federal funding, and the costs of educating the school-age population. In addition, welfare assistance, law enforcement, highway and road maintenance, litter control, and preserving local historical landmarks were taken up as part of the study of community economics. Another component of the unit concerned the incentive system and the profits of a local garment factory. Students learned about the different levels of interest rates on various types of loans and interviewed a variety of employers and employees. Further investigation concentrated on the poultry industry, in which Rockingham, a nearby community, is a leading producer. This led to class study of the diversification of the nation's economy. Throughout the eight weeks alloted to the unit, a number of basic economic concepts were introduced and used. After their concentration on the local community, it was apparent that the students began to understand how a market system works and to appreciate its basic institutions and values. At the same time, students considerably increased their knowledge of the structure and functions of the local governing units.

ORAN W. PALMER JR. and MICHAEL SLOVIK, teachers at *Claremont High School, Claremont, California*, developed a one-semester course entitled "Introduction to Economics" as part of a twelfth-grade requirement in the study of government. The course takes up the premises, structure, and functions of the American economic system, and focuses on economic theories relevant to our economy today. The course, developed over the past five years, is divided into four major units: "The Anatomy of an Economy," "Our Economy in Operation," "The National Economy and Public Policy," and "The National Economy and International Trade."

A representative unit in the course is "Our Economy in Operation." It deals with the structure and role of the firm; the elements, structure, function, and interrelationships between the product and factor markets; and the role of the factor market in public-policy practices directed at income redistribution. Among the more effective instructional strategies used was a series of weekly guest speakers. Evaluation was provided by objective and by essay examination methods as well as by position papers. The latter were designed to measure a student's ability to make a normative analysis based upon positive evidence.

JUANITA FRYER, a teacher at *Bentonville High School, Bentonville, Arkansas*, devised a simulation in which students in consumer education courses were "paid" for correct answers during a review and permitted to use the payments to purchase answers to test questions the following day. The activity was designed as a vehicle to review and to reinforce basic economics concepts covered during a six-week term.

On the day prior to the six-week test, students were given an envelope containing large-size macaroni shells. Additional shells could be earned by providing correct responses during the review or could be lost by providing incorrect information. Shells could be used at any time to purchase candy or could be saved for use at test time. The shells were spray-painted in two colors: one to be used for answers requiring specific information and the other for more complex answers. The use of paint also served to deter students from surreptiously bringing additional shells to class.

During the second six-week term, two additional dimensions were added. Students were allowed to buy insurance against wrong answers or to borrow shells if they badly wanted help on the test. Loans could be paid back with special reports. A six-week mortgage was also available. Students found the simulation most enjoyable and also improved their mastery over the economics concepts presented. The evidence was the improved test grades, even after an adjustment of a possible 10 percent deemed attributable to buying correct answers with the shells.

PATRICIA M. ASHBROOK, a home economics teacher at *Sacred Heart Academy* in *Louisville, Kentucky*, developed a unit to acquaint sophomores with the economic impact of efforts to "recycle" (revive) the downtown business district of a community. Using Louisville as the example, students were introduced to a number of basic economic concepts, economic institutions, and systems. A decision-making model was used throughout in order to help students see the relationship between the various forces in the community—consumers, businesses, financial institutions, and government—and how they affect the economic life of individuals. A variety of strategies and methods were used, including field trips, speakers and resource persons, project folders, worksheets, and contract grading. The unit was enriched with many audiovisual aids, crossword puzzles, and a series of teacher-made tests. The unit, "Recycling the Business District of the City of Louisville, Kentucky, and Its Effects," provides a model teachers elsewhere might easily adapt. Business districts are frequently crucial to the economic health of a community, and many cities throughout the nation have business districts that need or are undergoing recycling in order to maintain or improve the economic benefits they bring. Study of the recycling of a business district provides outstanding opportunities for effective and relevant economic education.

EDITH FAYE BEARD, a teacher in the *Monticello High School, Monticello, Arkansas*, developed a strategy to integrate economics into her eleventh- and twelfth-grade world history classes. Using "Imperialism: A Blessing or a Curse?" as a focus, students were introduced to a number of basic economics concepts as they studied the scramble for overseas colonies that started in Africa during the middle of the nineteenth century. During the unit, students learned to apply the concept of scarcity as it related to imperialist ventures; how innovation and invention are crucial to economic growth; why markets and opportunities for investment are needed; and other related concepts and ideas. A panel from each class studied and compared some of the chief early theories of imperialism—those of Hobson, Lenin, and Schumpeter—as well as the concepts and explanations of more contemporary writers. The theories of imperialism were applied to discussions of contemporary multinational corporations. Throughout the unit, students completed such activities as crosswords puzzles, word games, quizzes, and tests. The timing of the unit was important to its success. Since students had studied economics all year, this unit served to reinforce and review what they had been taught earlier. The students' test scores indicated that most had achieved a basic knowledge of economics and the specific learning goals of the unit.

CHAPTER FIVE

Incorporating Economics in the K-6 Curriculum

Patricia Derrico and A. Thomas Kartsotis
Lincoln Elementary School, Bethlehem, Pennsylvania

Introduction

Lincoln Elementary School, one of seventeen elementary schools in the Bethlehem Area School District, is a Title I school, with approximately 360 pupils in kindergarten to grade six. Lincoln Elementary uses a variety of teaching strategies, among which are team teaching, multi-age heterogeneous and homogeneous grouping, individualized instruction, and microcomputer-assisted instruction.

Following a series of activities held in conjunction with the Center for Economic Education at Lehigh University, which included in-service teacher training, workshops, and curriculum consultation, we set ourselves the goal of developing a project to introduce economic education into all phases of the K-6 curriculum, with special emphasis on the social studies.

Learning activities included:

- A complete K-6 simulation unit, called "The Chocolate Milk Crisis," which stressed the concept of scarcity. Teachers used the unit during the first two weeks of the school year. The activity introduced the entire school to basic economic concepts and decision-making skills, which students would attempt to master in the course of the year with the aid of additional strategies and reinforcement;

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*The "Open Category" was added to the National Awards Program for the Teaching of Economics to encourage educators whose responsibilities are not defined by traditional grade-level distinctions—e.g., primary grades, intermediate grades, etc. Among those who became eligible and were encouraged to submit projects to the program were school libratians, curriculum supervisors, and school administrators. Such individuals often have multi-grade and/or school-wide responsibilities.

- "The Lincolnomics Mall—Learning Economics in the Marketplace," a simulation unit emphasizing entrepreneurship, was designed to reinforce and broaden student knowledge of fundamental economics concepts and use of the decision-making model introduced during the first simulation.

Part One—"The Chocolate Milk Crisis"

The purpose of the "The Chocolate Milk Crisis" was twofold: to introduce basic economic concepts and decision-making skills and to give students the opportunity to experience a real-life dilemma. The class explored the problem of unlimited wants versus limited resources. The students had to decide how to allocate the scarce resource and evaluate the solutions they reached. The class resolved the dilemma of scarcity by discussing, brainstorming, and decision making.

To instill a unity of purpose in the school's commitment to economic education, the two-week simulation was begun the second full day of school. Since all classes and teachers, kindergarten to grade six, were to participate simultaneously, the writing team provided a guide that included detailed instructions and activities for each grade level for each day. Little advance preparation on the part of teachers was necessary, and teachers new to the building were able to begin the unit with confidence.

The staff attended a training session on the teacher preparation day that precedes the opening of school. At the session, the teachers who wrote the unit provided instruction and practice in brainstorming and decision making. The staff also viewed several of the *Trade-offs* videotapes and were instructed on the use of the unit guide for simulation.

Objectives of the Simulation

Students will:

- Know the meanings of the terms *wants* and *resources*, as used in the study of economics;
- Know that scarcity is the relationship of wants to resources—i.e., wants exceed resources;
- Know that scarcity is a condition inherent in life—individual and collective, human and nonhuman—rather than an occasional situation or one that can be overcome if there is sufficient money;
- Know that people respond to scarcity by making choices;
- Know that by choosing one way of spending a resource we lose the opportunity to spend it another way or for another purpose (opportunity cost);
- Know that every benefit has some cost;
- Know that when people make a choice, they balance anticipated benefits against anticipated costs;
- Know reasons why adequate information is the key to drawing valid conclusions about the comparative advantage of one choice over another;
- Be able to recognize existing options or alternatives for decisions;

- Be able to develop feasible alternatives for personal decisions;
- Know steps common to decision-making strategies:
  1. Define the problem
  2. List alternatives
  3. State criteria
  4. Evaluate alternatives
  5. Make a decision

Using the Simulation

The Chocolate Milk Crisis was started in every class at the same time. The common time allowed interaction among classes and unity of effort of the whole school resolving the problem. Teachers selected activities from "The Chocolate Milk Crisis" teachers' guide, which also included an extensive bibliography for teacher use. An overview of each day's activities follows.

Day one. The students in each class were asked whether they wanted to purchase chocolate milk the next day. They were then told that only 50 percent of the quantity needed was available. Students were introduced to brainstorming and then used that technique to decide how to allot the chocolate milk. After the choices were made, each student received a special token to be used in purchasing chocolate milk. A letter was sent home to parents describing "The Chocolate Milk Crisis."

Day two. Each class evaluated its brainstorming and decision making. Children shared ideas regarding the "unfairness" of their choice, how other groups solved their problem, and discussed shortages in real life.

Days three, four, five. Students participated in a variety of games and other activities developed to help them understand the concepts of scarcity, supply and demand, and unlimited wants.

Day six. Teachers again surveyed their classes to determine the number of students wishing to purchase chocolate milk at lunch the next day. Again, students were informed that only 50 percent of those wishing to purchase chocolate milk would be able to do so. A variable was added to the problem: students not receiving a chocolate milk token were randomly given one of three special tokens redeemable for merchandise at the school store. The tokens were worth a free pencil, free eraser, or five-cent discount. Much to the surprise of the teachers, the students regarded chocolate milk token as the most valuable of the tokens.

Day seven. Students participated in a variety of activities, including games developed to help them understand the concept of choices/trade-offs.

Day eight. Students viewed *Trade-offs* videotape Lesson 2, "Malcolm Decides," discussed it, and followed up with a decision-making session for the problem posed on tape. They then compared the model process shown in the lesson with their own process for making a decision in the first chocolate milk crisis on Day One.

Day nine. Students participated in a variety of activities developed to help them to understand the meaning of the term *resources*.

Day ten. Students reviewed the concepts of scarcity, demand, and barter, and their application into the chocolate milk crisis.

Evaluation

Each teacher submitting a daily log indicating the concepts learned, strategies used, and pertinent information regarding success of problems encountered in the lesson. A review session was held at which information was gathered from the entire staff. The staff economic education planning committee later used the information in developing the Lincolnomics Mall unit.

Part Two: "The Lincolnomics Mall – Learning and Earning in the Marketplace"

"The Lincolnomics Mall" unit utilized a simulated shopping mall to reinforce and expand students' knowledge of economic principles gained in "The Chocolate Milk Crisis" simulation. In the mall simulation, each class established its own business. Teachers planned the unit and activities for their classes on the basis of the students' maturity level and needs and the requirements of the planned business.The business was to operate within the framework established by the staff for the mini-society. Specifics were left to the ingenuity and imagination of each business.

A monetary system was established, using the Rainbow Dollar as its base. The Student Council made up of elected representatives from each class, administered the Rainbow Bank of Lincoln. Each business made a loan application for start-up and operating funds. Businesses had to make an accurate estimate of the amount of funds they needed for payroll; cost of materials, rent, and utilities; and 10 percent interest on the loan. Workers deposited their weekly payroll checks in the bank; the depositors filled out deposit slips whenever they banked their money, and they received 10 percent interest on their savings.

Each business had to pay rent and charges for the use of utilities. Rental costs varied and were determined by pedestrian traffic patterns.

Each business also had to "pay" for all materials, including school supplies, used in the production of goods or services. A pricing guide was developed to allow each class a means of estimating its production costs. The teacher could purchase any item not available at the school from a local store.

Advertising wall space was allocated to each class. In addition, each business was given an option to present two "radio" commercials over the school intercom.

The ultimate goal for each business was to show a profit at the conclusion of the unit. This forced each business to select and market a good or service that would be in demand by the Lincolnomics Mall consumers. Each business developed its own procedures for monitoring production costs, quality control, and general operating costs. At the conclusion of the unit, each business completed the Lincolnomics Mall Accounts Ledger and a graph displaying costs, income, and profit or loss.

Goals

Teachers chose among the following instructional goals, those appropriate to the grade level, needs, and type of business developed in their classes.

Students will:

- Become aware of how a business operates in the framework of the American economic system;
- Learn about the role of the entrepreneur as an organizer of productive resources;
- Be involved in production, marketing, sales, and other business operations;
- Have a firsthand experience in producing a product or service for sale;
- Recognize that decisions concerning what to produce, how to produce, and for whom to produce are made in the marketplace;
- Understand that competition is one of the important characteristics of a capitalist economy;
- Understand how profit acts as an incentive to business;
- Know the meaning of the terms *specialization* and *division of labor*;
- Know that when people divide tasks and specialize in particular occupations, everyone becomes mutually dependent on everyone else;
- Be aware of ways by which advertising influences the sale of goods and services;
- Be aware of factors that determine prices;
- Be aware that the purpose of advertising is to inform people about specific goods and services and to encourage purchases;
- Know that demand concerns willingness and ability to buy;
- Know that prices are affected by the supply of and demand for goods and services;
- Become aware that people who make or provide goods and services are producers;
- Know that producers must decide:
  1. What to produce
  2. How much to produce
  3. What markets to produce for
  4. What prices to charge
  5. When to sell
- Be aware of factors that affect buying decisions;
- Recognize the relationship between productive effort and money income;
- Become aware of the importance of work and its personal and social functions;
- Become sensitive to the necessity of treating workers with respect;
- Be aware of the features and functions of banking institutions;
- Be aware of terms and concepts such as resources, income, expenditure, credit, debt, profit, etc.;

- Know that money is used to exchange goods and services without barter and to measure values as well as a storehouse of value;
- Be aware that credit allows immediate acquisition of goods and services to be paid for at a later date, along with credit costs;
- Be aware of procedures involved in applying for a loan.
- Know that tax revenues are governmental income;
- Develop skills in writing and speaking, group participation, leadership, critical thinking, decision making, interviewing, and objective analysis;
- Participate in activities designed to develop critical thinking skills and abilities;
- Know procedures used in gathering and interpreting economic data.

Operation of the Lincolnomics Mall Simulation

The entire instructional and support staff, including teacher aides and parent volunteers, was directly involved in the Lincolnomics Mall. By including the support staff we were able to reduce teacher-pupil ratios, and in utilizing the multi-age grouping patterns in our school a real-life setting of varied ages and abilities was established for each business in the mini-society.

The nine half-day weekly sessions devoted to the mall continued from January to March 1981. The first three sessions were largely devoted to the development of economic concepts in class. Resource people, such as bankers, business owners, and sales representatives, were invited to discuss their businesses or service organizations or their roles as employees. This activity was coordinated with the school's career education program, and many of the presentations were videotaped and used in other classes.

During the early stages, the pupils planned the specific types of business they wanted to establish. Many groups took marketing surveys in the school to help them decide. The final choice was in the main made by the students.

Nineteen businesses were established and developed for the Lincolnomics Mall. These included a great variety of gift and craft shops, bakeries, an airplane shop, a snack bar, a travel agency, a bowling alley, and a popcorn shop.

Each business developed with a style that reflected the students and teacher. Shortly after the business was established, an organizational plan was created and leaders were selected. Each group selected leaders, who were given various titles, such as president, manager. Each business listed the jobs that were available and developed job descriptions. Children completed applications for specific jobs, listing their special qualifications.

In developing their businesses, children became good problem solvers. Efficiency, division of labor, specialization, and quality control became critical if a product or service was to be produced at the lowest cost. Group consensus versus decision by a leader often caused heated debates.

Midway through the unit, advertising emerged. Groups began campaigns to create a need for their products or services. One group wore printed T-shirts advertising their product. Others developed their product under the tight security of locked doors for fear that some industrial "spy" might steal their idea. Workers in the We Bake It – You Take It bakery were visibly upset when they discovered another bakery's advertisement hanging from their ceiling when they arrived in their classroom one morning.

As the opening day approached, interest rose ever higher. Advertisements covered every available inch of space in the hallways. Commercials were heard over the school intercom at the beginning, the middle, and the end of the school day. School attendance reached its highest level in two years.

During the morning, children prepared their shops and businesses for the grand opening. Workers visited the Rainbow Bank to cash their payroll checks and withdraw their savings with interest, then contemplated how to spend their hard-earned Rainbow Dollars.

The Lincolnomics Mall opened for business after lunch, ran through the afternoon and continued the next morning. Each business set up its own work schedule, with approximately half the group working in the business while the other half shopped in the mall. Most, but not all, the children budgeted their money so that it would last the two-day period.

Evaluation

Evaluation for the unit was carefully structured by the staff. Following the second day of business, each company met to discuss its successes and/or failures in great detail. A guide had been developed and distributed to the children to suggest subjects for discussion. The teachers reported the matters of greatest importance in each one's group. A graph was plotted indicating costs, profits, and losses for each business. The children completed a survey indicating what they liked the best and what they liked least about the simulation.

Finally, the intermediate- and primary-grade students each met separately in the multipurpose room to review the events. The principal served as facilitator. Each business displayed its profit-and-loss chart and took a few minutes to offer an analysis of the operation. Excellent interchange took place among students.

It became very evident to the staff that the children had outstanding perceptions regarding economic principles, with ready applications to real-world problems. The large-group sessions were videotaped and later analyzed by staff.

Conclusion

Economic education has had a tremendous impact on both the students and staff of Lincoln Elementary. Economic concepts and generalizations were introduced and studied in great depth. Students had a unique opportunity to apply what they had learned in the mini-society simulation, and their social studies units took on an important aspect. Newspaper headlines describing our economy began make sense to our students.

Decision-making skills emphasized in our Philosophy for Children program and life-skills curriculum were practiced throughout both simulation units. Career education gained added meaning. Children practiced reading, writing, speaking, and math skills in a great variety of practical situations. The importance of mastering these skills became evident to students. Calculating the costs of goods, making change, interviewing a resource person, writing out a check, drafting a thank-you letter, and creating a concise two-minute commercial were only a few such experiences.

An unexpected outcome was the impact of the units on the entire staff, students, and community. The Lincoln Elementary staff had been working together only one year prior to the 1980–81 school year. The common learning experience provided for two diverse school populations, now combined in one new school setting, worked well for everyone. Children from the low-income housing unit used their "street sense" in a positive manner, while children from more affluent middle-class homes offered a different approach to solving a problem. Children also gained new respect and understanding for the local business community, whose support of this project was very gratifying.

By becoming immersed in The Chocolate Milk Crisis on the second day of the school year and later becoming intensely involved in the Lincolnomics Mall, the staff became unified and proud of the successes of the program. The entire staff gained an understanding of economic concepts that could quickly become part of daily teaching. Planning and preparing for the project was done during a limited number of in-service meetings and workshops, but most of the work was voluntarily done by the teachers after school hours.

The project proved to be a positive learning experience for both staff and students.

Minnesota Community Studies

Robert W. Beery and Robert J. Todd
Rochester Public Schools, Rochester, Minnesota

Introduction

The Minnesota Community Studies curriculum, developed with Title IV funds under the Elementary and Secondary Education Act (ESEA), includes student books, filmstrips, worksheet masters, simulations, and complete teacher's guides. Materials are designed as a flexible half-year program for grade six.

We believe the diversity of perspectives provided by the thirty-six educators and community representatives involved in the development of the materials significantly strengthened the final product.

Minnesota Studies is, first of all, various means of actively learning about diverse and changing ways of living in Minnesota communities. Examples are the use of a variety of written and visual sources in exploring the reasons why the Ojibwa people came to dominate northern Minnesota during the time of the fur trade and why East Europeans migrated there in the early twentieth century.

Clearly, much that is included in Minnesota Studies can apply to human life in other times and places. In this sense, then, Minnesota simply provides a source of data for illuminating some significant ideas about life today, in the past, in the future. The ways in which the economy of Benson, Minnesota, reflects the state of agriculture in the Benson trading area could be applied to understanding rural service centers at the turn of the century or present-day changes brought about by increased diversification in the old cotton belt.

In addition, there is recognition that key developmental stages in the intermediate school–junior high years concern the children's discovery of their many unique relationships to others and that these stages can be stimulated by activities that require children to reflect on their own experiences as participants in events. This inevitably requires the use of family and community examples in class. This might involve speculation on the reasons one's family moved into the state and community and reasons why a family might move on to other areas in the future. Going beyond this to a sharing of personal experiences of migration and reflection on the consequences of geographic mobility can be worthwhile.

The study of the local community and Minnesota, then, provides opportunities for the growth of the individual's sense of self and for discovering how people interact and how human lifeways change. Furthermore, it makes possible development of a body of functional knowledge about Minnesota and one's own family and community. Minnesota Community Studies Project materials are one approach to developing a state-based program that reflects these broad goals.

Unit Descriptions

The complete package of project materials was designed for about twenty-four weeks of instruction. The following description of content and materials provides an overview of six units:

A. Community growth (set in Rochester, Minnesota). A four-week unit with student book, "clue cards," blackline masters, and teacher's guide.

1. *Settlement.* Personal accounts were used to hypothesize about processes of migration and community development.

2. *Economic interdependence.* Students made inferences about the economic interdependence of individuals and institutions by studying case materials dealing with a local grocery store, a shopping center, and an international corporation.
3. *Community change.* Study of the Mayo Clinic to explore changes in institutions and in the community and their interrelationships.
4. *Changing perceptions of race.* Students inferred reasons for changes in behavior and attitudes in one community.

B. Living in the city (set in St. Paul's Mexican-American community). A three-week unit with student book, a sound filmstrip, blackline masters, teacher's guide.

1. *Urban neighborhood community.* Students used visual materials to identify characteristics of "community" in a large metropolitan area.
2. *Cultural change.* Students used audio and print materials to infer processes of cultural change as evidenced in life-history materials.
3. *Ethnicity.* Students used a variety of print and visual materials to make inferences about the significance of ethnic traditions in the lives of individuals.
4. *Social and political interdependence.* Through personal accounts, news stories, and role-playing, students inferred the importance of voluntary participation in political processes.

C. Two communities (set in New Ulm and the Lower Sioux community in west central Minnesota). A three-week unit with student book, two sound filmstrips, evidence cards, blackline masters, and teacher's guide.

1. *Culture and environment.* Students compared and contrasted the perceptions native Americans and Europeans immigrants had of the same environment and how these perceptions resulted in different behavioral patterns.
2. *Culture change.* Students inferred changing population patterns and made value judgments about the changes.
3. *Ethnic identity and changes.* Students used family-history data to infer the significance of ethnic traditions and changes in them.

D. Change on the range (set in Mesabi Iron Range in northern Minnesota). A three-week unit with student book, sound filmstrip, teacher's guide.

1. *Culture and environment.* Students used personal accounts to compare and contrast values, technologies, and behavior as reflected in the ways distinct groups have utilized the range.
2. *Economic interdependence.* The students inferred reasons for the "boom-and-bust" economic history of Hibbing, Minnesota.

3. *Changing economic base.* Students probed the controversy regarding exploitation of copper-nickel deposits in northern Minnesota. They made reasoned value judgments about the issues involved.

E. Rural Minnesota (set in Benson, Minnesota, a small agricultural center). A three-week unit with student book, filmstrip, blackline masters, teacher's guide.

1. *Economic interdependence.* Students determined the interrelatedness of "town" and "country" in an agricultural community.
2. *Changing agriculture.* Students inferred changing agricultural patterns and the reasons for these changes, as they examined visuals, first-person accounts, and statistical data.

F. Looking at our community. An eight-week unit with three student books, blackline masters, teacher's guide.

1. *The community today.* Students used local resources to test their hypotheses about the community's economic base, government agencies and services in the community, and the ethnic composition of the local population.
2. *The community's past.* Students developed their own local history materials through use of a variety of inquiry techniques, including interviews, the study of contemporary accounts, and the analysis of artifacts.
3. *The community's future.* Students made predictions about their community's future on the basis of knowledge about trends. They were also involved in making reasoned value judgments about the future of their community.

Evaluation

Formal research demonstrated Minnesota Community Studies Project materials to be effective in achieving conceptual and inquiry objectives.

Three hundred and twenty-one students involved in instruction with Minnesota Community Studies Project strategies and materials scored significantly higher ($p > .001$) on the "Minnesota Community Studies Assessment Instrument (revised)" than a control group of sixty-three students. The testing instrument measured concepts and inquiry skills that were basic to both the experimental and control programs. The report on project evaluation concluded: "The use of project materials, with all things equal, should result in higher levels of pupil achievement in the concepts and inquiry skills tested."

Besides that research into student achievement, there were surveys of perceived effectiveness:

- Teachers using the materials for the first time unanimously recommended that project materials be used again next year.

- Over 90 percent of 675 students surveyed recommended continued use.
- A parent survey reinforced teacher and student data, suggesting that materials were perceived to be highly and consistently effective.

Libre! – Libre! Free! – Free! A Bilingual Study of Economics as Applied to the American Enterprise System

Sue Devero, Troy Bedwell, and Jim Shropshire
Southside High School, Fort Smith, Arkansas

Project Overview

Because we had decided that the most effective way for students in marketing and distributive education to study economics was for them to "learn by doing," we proposed that our 120 students develop a unit on economics, with particular emphasis on the American enterprise system, which might be used effectively in the fifth or sixth grade.

Midway through the project, as a result of a suggestion made by one of our students, we decided that we would "field test" the unit at Fort Chaffee, where a large number of Cuban refugees were detained. The decision to present the free-enterprise portion of our economic education program did not necessitate changing the format we had planned for the elementary-level unit. The educational level was approximately the same for the Cuban refugees as for fifth- and sixth-graders. Although the average age of the refugees was twenty-eight, the majority were men with about a fifth-grade education. They had no knowledge of economics. Presenting the program to the Cubans caused a drastic change in the mechanics of organizing our program, and altered the scope of our original plans.

Background

As coordinators and teachers of marketing and distributive education, our past experiences with the students and their employers caused us to feel strongly about developing a program designed to enhance the economic understanding of our 120 high school students. We felt it necessary to move in this direction as a result of several factors:

- Our students attended school in the morning and left for jobs in retailing in the afternoon or evening. It was our contention that they were directly involved with the practical application of many economic concepts. We felt it important that they study these concepts and know about the basic institutions of the American free-enterprise system;
- We had attended a series of conferences and programs and heard presentations concerning the importance of understanding economics as an essential to successful business operation;
- We were concerned with survey results that indicated that many people had negative views of business, business leadership, and the term *profits*;
- We were aware of our students' lack of economic knowledge and of their ignorance of the American economy and how it functions.

Overall Goals

The major goal of the project was to help our students understand the fundamental concepts of economics and to be able to apply these concepts to an in-depth study of the American free-enterprise system. Our instructional objectives were:

1. To develop a basic understanding of specified economic concepts;
2. To lead our students to an understanding of the American economy—its organization, operation, institutions, and guiding principles;
3. To have our students develop an appreciation of the American system of enterprise;
4. To encourage our students to develop an instructional unit to be used in the fifth or sixth grades.

As indicated above, we decided that we would carry out an experimental phase of the project with Cuban refugees. For that purpose, we added the following secondary objectives:

1. To acquaint the Cuban refugees temporarily housed at Fort Chaffee, Arkansas, with the American free-enterprise system;
2. To foster a positive attitude toward education and work as essentials for living in the United States and for acquiring American citizenship;
3. To help the Cubans adjust to the American way of life.

Project Description

Following the administration of a pretest in economics, we showed our students the five films in the American Enterprise series, which give a broad view of American economic history. The films presented the factors responsible for the growth of the United States. Following each of the five films, discussions were held, accompanied by a quiz. This stage took up the first week of our nine-week unit and served as the motivating tool for our students.

During the second and third weeks, we used a series of readings and transparencies to present the concepts we wanted to emphasize. Next, we used several additional films to reinforce earlier instruction about economic concepts and the American economy.

During weeks five through eight, our students began to prepare the elementary study plan. They decided that the most effective and interesting learning strategies were those involving games, simulations, and role-playing. Using these techniques, the students, organized in small groups, developed the following minicourse for elementary school pupils:

FREE ENTERPRISE–IT'S WORKING TO KEEP YOU WORKING

THREE-WEEK MINICOURSE IN ECONOMICS FOR FIFTH- AND SIXTH-GRADE STUDENTS

1ST WEEK

Monday: Pretest and discussion of pretest at end of period
Tuesday: See film *Kingdom of Mocha*; discuss film
Wednesday: Read in class and discuss booklet *About the Nature of Economics*
Thursday: Continue discussion started Wednesday
Friday: Assign list of vocabulary words; do work in class (words not completed will be homework for the weekend)

2ND WEEK

Monday: Review vocabulary list; make up a composite vocabulary list so all students have the same meanings for the words
Tuesday: Play word-scramble game [included in teaching unit]
Wedesday: Read in class and discuss booklet *About Man's Economic Wants*
Thursday: Continue discussion started on Wednesday
Friday: Discuss free-enterprise skit; assign roles to students

3RD WEEK

Monday: Continue discussion of free-enterprise skit; play free-enterprise bingo game with the students (this game serves as a post-test of their economic knowledge)
Tuesday: Prepare props and costumes for skit

Wednesday: Continue preparation of props and costumes
Thursday: Practice skit
Friday: Have students present the free-enterprise skit to another class and/or their parents; have audience fill out an evaluation form to show what they have learned from the skit

Outcome

After our decision to present our program to the Cuban refugees at Fort Chaffee rather than to fifth- and sixth-graders, we made preliminary arrangements with officials at the military post. Two speakers from the base came to talk with our students at Southside, following a visit by a group of our students and teachers to Fort Chaffee to explore the possibilities of setting up the project.

During the planning stages with officials and teachers at Fort Chaffee, it was suggested that our program be presented to three classes of thirty Cuban students each. As more groups heard of our program, they wanted to become involved. Eventually, when we made our presentations, we included approximately 1,200 refugees.

The program delivered to the refugees started with a skit, during which the students played the roles of the factors of production. Dressed in costumes appropriate to their roles, the students gave brief talks on each of the factors of production and how each was important in the production process. At the end of each talk, a piece of a large puzzle was placed on a large backdrop. When all the factors had been presented, the puzzle pieces formed a large map of the United States, with a baseball cap appearing in the center. Each productive factor was shown on the map, demonstrating how all the elements of free enterprise combine to produce the products and services used by the people of the United States and the world.

We then introduced an aspect of the program that focused on placing orders for and selling 200 baseball caps. Since the students undertook risks to purchase caps with borrowed money and then sold the caps as a fundraiser, a considerable amount of economic understanding was generated.

The final phase of our project with the Cubans was the development of a bingo-like game which we called "Libre." It was designed to teach the students economic concepts and terms. Instead of calling out numbers, as in bingo, the leader read a definition of one of the economic concepts the Cubans had been studying. The cards were designed to include definitions of the concepts. The game proved to be very interesting and fun for the students and at the same time served to test what had been learned. An added component of the project—translations of everything into Spanish—provided an unexpected bonus for our own students.

Evaluation

The total involvement and commitment of the 120 high school students involved in our project was gratifying. We discovered talents and skills among them which had never been demonstrated previously. Certainly, traditional course offerings would not have brought these out. In addition, we had support data that indicated our objectives had been achieved. The post-test results showed scores significantly higher than those achieved in the pretest.

We also developed an evaluation form with the following questions:

1. Did you gain a better understanding of the American free-enterprise system because of this project?
2. Did you gain a better understanding of the Cuban refugee problems because of the project?
3. Did you enjoy working on the project?
4. Were the results of this project, in your opinion, worth all the time and effort spent by everyone?

Responses to the questions could not have been more positive.

Economics Is Kids' Stuff

Anna Frankel and Ruth Faulkner
Cleveland Fundamental School, Cleveland, Ohio

Background

The Fundamental Education Center became the first Ohio school to attempt to enhance economic literacy among its students by introducing economic concepts throughout the curriculum, including daily classroom procedure as well as in teaching of mathematics, social studies, language arts, science. Cleveland Fundamental opened in 1979 as a magnet school, stressing the three Rs in a back-to-basics approach. Discipline, homework, and a dress code are key ingredients in the school's operation.

In January 1981, a fourth subject was added—economics. Rather than teach it as a separate subject, we decided to incorporate it in all other disciplines. To our knowledge, the Fundamental Education Center was the first school in Ohio, perhaps the nation, to use economics as the central organizational structure for the other disciplines (see Exhibit 1).

Economics was part of social studies in the elementary curriculum but was included in other subjects only at the option of the teacher. Until the FEC program, no comprehensive attempt was made to specify the economic concepts elementary students should master or to determine which concepts were to be taught at each grade level. One previous effort had been made in a Cleveland

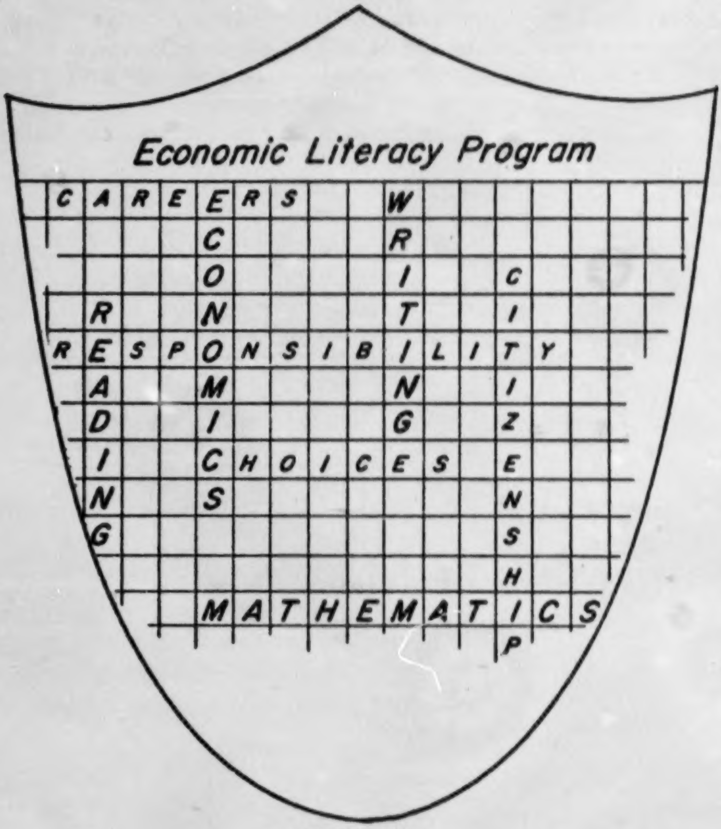

Economic Literacy Program
CAREERS
ECONOMICS
WRITING
CITIZENSHIP
READING
RESPONSIBILITY
CHOICES
MATHEMATICS

EXHIBIT 1

public school peer-training program for twenty-five elementary teachers. The goals of that program were excellent but the twenty-five participants were assigned to twenty-four different schools, and it became clear that a more concentrated program, with comprehensive course development, was required.

Despite the availability of excellent economic education materials developed by the Joint Council on Economic Education and others as well as talented teachers who teach economics because they feel it important to do so, no school in Ohio except the Fundamental Education Center requires teachers at every grade level to assume responsibility for teaching the economic concepts specified for the grade.

Objective

The objective of the literacy project was to instill an "economic way of thinking" in students so that they might attain more control of their lives and, consequently, have better chances for success. The goal was accomplished by bringing economic concepts into the teaching of other subjects, such as mathematics, social studies, language arts, and science, which are all parts of the daily school curriculum.

Project Summary

The idea of a "four-R" curriculum was initially proposed by Cleveland public schools staff in October 1980 in response to the back-to-basics movement. The school system asked the Cleveland Center for Economic Education to help design and set up the program, and planning meetings were held throughout October, November, and December. The Harvard Business School club of Cleveland and Martha Holden Jennings Foundation provided financial assistance.

Phase one. An early result of the planning meetings was a table of concepts (Figure 1) developed cooperatively by the center director and teaching staff of the Fundamental Center. They listed the economic concepts to be taught and specified the grade level for introducing, teaching, or reinforcing them. To determine the grade level for each concept, CPS staff reviewed all texts in current use in the major disciplines in grades one through seven.

Phase two. The first priority was to instruct the Fundamental Center teaching staff in economics. The need for training was verified by the results of a pretest of staff knowledge of economics.

In-service instruction began in January with a half-day session. Nine morning sessions were held in January and early February. Robert Reinke, director of the Cleveland Center for Economic Education, served as the instructor. On February 12, 1981, a luncheon for the faculty was held at the Cleveland Athletic Club. School administrators and members of the business community were present to see the staff receive certificates for completing the inservice.

Phase three. Even before the in-service course ended, the third phase, consisting of curriculum writing and use, started. Teachers began to prepare lessons and to present them in class (see Figure 2). First, each grade level developed a pre- and a post-test for students and administered the pretest. Although a nationally normed test was used with the faculty, the consensus was that student tests should be staff created so that they could be limited to specified concepts rather than cover all concepts as nationally normed tests do.

Phase four. As teachers began to use the lessons a school "economy" emerged. This was not planned, although the staff was shown Marilyn Kourilsky's movie, *The Mini-Society.* Unlike the mini-society, which is contained in one classroom, the economy at FEC was schoolwide.

The school became a community. One floor had streets, another avenues, another roads. Teachers became heads of local governments. Students agreed on ways to earn Back-to-Basics dollars, and teachers hired civil servants for classroom chores. They also used prices to reallocate their time, thus rationing student interruptions. Students tutored others for fees.

FIGURE 1. ECONOMIC CONCEPTS OF THE FUNDAMENTAL EDUCATION CENTER (L = lead-up; T = teach; R = reinforce; A = application)

Concepts	Grade Level								
	K	1	2	3	4	5	6	7	8
Scarcity									
Economic goods/free goods	L	T	R	R	A	R	R	A	A
Economic roles									
Consumer	L	T	R	R	R	R	R	A	A
Producer	L	L	T	R	R	R	R	A	A
Citizen	L	L	L	T	A	R	R	A	A
Choice									
Determine problem	–	T	R	R	R	R	R	A	A
Determine alternatives	–	L	T	R	R	R	R	A	A
Determine criteria	–	L	L	T	R	R	R	A	A
Opportunity cost	–	L	L	T	R	R	R	A	A
Trade offs/substitutes	–	L	L	T	R	R	R	A	A
What? How? For whom?	L	L	L	T	A	R	R	A	A
Resources									
Inputs needed for outputs	–	T	R	R	R	R	R	R	R
Land, labor, capital, time	–	L	T	A	A	R	R	R	R
Exchange									
Barter	–	L	T	R	R	A	R	A	R
Medium of exchange (money)/ store of value	–	L	T	R	R	R	R	R	R
Inflation	–	L	L	L	L	T*	R	A	A
Banking	–	L	L	L	T	R	R	A	R
Market									
Supply	–	L	L	T	R	R	R	R	R
Demand	–	L	L	T	R	R	R	R	R
Price	–	L	L	T	R	R	R	R	R
Profit	–	L	L	T	R	R	R	R	R
Interdependence	–	L	L	L	T*	R	A	A	A
Income									
Wages	–	L	L	L	T	R	R	R	R
Transfer payments	–	L	L	L	L	T	R	R	R
Circular flow	–	L	L	L	T	R	R	A	A
Specialization	–	L	L	T	R	R	R	R	R
Government									
Regulation	–	L	L	L	L	T*	R	A	A
Taxation	–	L	L	T	R	R	R	A	A
National goals	–	L	L	L	T*	R	R	A	A
Ohio in the market place (Cleveland)	–	L	L	T	R	R	R	A	R
International									
Trade	–	L	L	L	T	R	A	A	A
Tariffs	–	L	L	L	L	L	T*	A	A
Comparative advantage	–	L	L	L	T*	R	A	A	A

*In 1981–82.

FIGURE 2. LESSON PLAN

SUBJECT ____________________

SUBJECT CONCEPT(S) __________ ECONOMIC CONCEPT __________

__________ __________

____

OBJECTIVE: ______________________________

____

____

MATERIAL: ______________________________

____

PROCEDURE: ______________________________

(Introductory Activity) ______________________________

(Developmental) ______________________________

(Culminating) ______________________________

EVALUATION: ______________________________

____

COMMENTS: ______________________________

____

NOTE: This sample form was given to teachers. They are not held to a rigid form. They must give concepts for both the subject and economics for each lesson. When all lessons are written (estimated number: 500 +) they will be published.

A fourth-grade class designed the school money (Back-to-Basic dollars); students of the math specialist distributed BB dollars to teachers and kept financial records; seventh-grade students were required to pay rent, purchase food and other necessities, and pay taxes; all except grades one and two developed businesses producing goods and services which were sold to students and teachers in all grades.

Production reached a peak in The Marketplace, a one-day event at which classes set up booths in the school lobby and sold goods and services to each other and to parents and guests. All transactions were in BB dollars. The Central Bank opened an exchange window in the lobby so parents could purchase BB's at a rate of 1,000 to one dollar. A financial newspaper published by students in the media center was sold. The Post Office sold stamps (designed by seventh-grade students) and delivered letters.

Phase five. Following The Marketplace, all businesses were liquidated and annual reports prepared. Loans were paid back to the Central Bank, all taxes were collected, and classes found out whether they had a profit or a loss. Post-tests were given to students and faculty to measure the growth in learning economics.

Evaluation

The Fundamental Economic Education Literacy Program incorporated a variety of evaluative instruments into the design. For teachers, they included the *Test of Economic Literacy* (JCEE, 1979), Forms A and B. Students were evaluated by hybrid grade-level and pre/post tests; *Primary Test of Economics* (JCEE, 1973); *Test of Elementary Economics* (JCEE, 1971); and a questionnaire. The teacher evaluation had a pre- and post-test design. Form A of the *Test of Economic Literacy* (TEL) was given at the beginning of the first daylong in-service meeting on January 8, 1981. Thirty-one professionals at FEC took the exam. The mean score was 21.33 points, with a range of 7 points to 37 points.

Following twenty hours of extensive in-service economic education and instruction of selected economic concepts to their students for a period of six months, the teachers took Form B of the TEL. Twenty-one of the original thirty-one teachers took the exam. (The difference was due to teacher attrition during the school year because of budget cuts and the resulting lowered morale of remaining staff.)

The mean score for the post-test was 28.3 points, with a range of 11 points to 42 points. The gain score from pre- to post-test placed the FEC teachers above the national mean for individuals with economics training. (Based on research by John L. Soper for *Test of Economic Literacy: Discussion Guide and Rationale*, JCEE, 1979.)

The student-test design included the writing of hybrid tests for each grade, utilizing the format and selected questions found in standardized instruments. This technique was followed because the topics covered differed from grade to grade. The mean scores for the seven classes in the sample were:

15-point instrument: pretest = 6.45; post-test = 11.35

20-point instrument: pretest = 4.10; post-test = 7.37.

Although we did not, of course, have national norms for the testing instrument we designed for the students, the average gains accomplished in the relatively short period of instruction indicate they were learning economics at a rapid rate. We felt that incorporating economics in the teaching of the other subjects as well as emphasizing economics in the school as a whole were responsible for this rapid learning.

The final formal evaluation consisted of a student questionnaire, which all students completed. The summary tally and remarks follow:

STUDENT SURVEY—ECONOMIC EDUCATION REPORT
(449 RESPONSES)

	Yes	No
1. Did you learn about economics this year?	429	20
2. Is economics important to know?	413	36
3. Did you want to come to school when you were studying economics?	385	64
4. Was The Marketplace exciting?	381	68
5. Did you make things for The Marketplace?	363	86
6. Did you buy things in The Marketplace?	400	49
7. Would you like to learn more economics?	391	58
8. Do you think the Fundamental School should have a market day next year?	406	43
9. Did you talk to your family about the economics you learned at school?	308	141
10. Did your family come to The Marketplace?	217	232

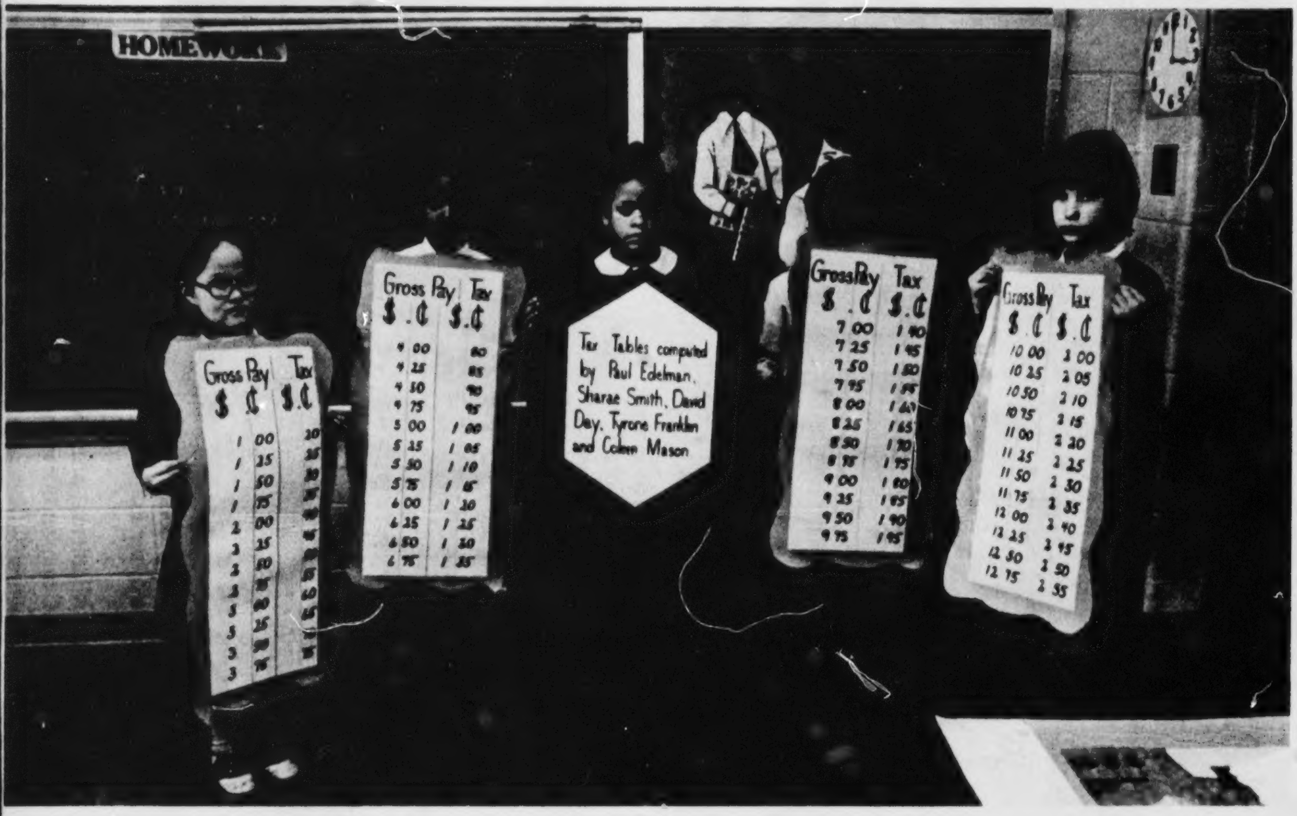
Students were also required to "write your own special feelings about the economics project" in space provided on the form. Some of the remarks follow:

> "It was great because you can make money."
> "I liked working and making wishing wells."
> "We should have a market day three times a year."
> "I like to start my own business."
> "It was boring."
> "It made you feel like an adult."
> "It was nice, and I thank Mrs. Middleton for letting us have economics."
> "I loved it."
> "We learned how to save and spend wisely."
> "It helped me know about everyday life out of school, when you are on the streets and at your home."

The questionnaire indicates the students had a strong positive attitude toward economics. This ability of a program to instill a desire to learn more economics is remarkable.

Although subjective viewpoints and other observations were not part of the formal evaluation process, they can add insight into the overall effectiveness of a program, for example:

Mrs. Dorothy Middleton, principal: "Attendance for students greatly improved (placing FEC number one in the East cluster) once the economic education program was initiated."


HOMEWORK
Gross Pay Tax
$ ¢ $ ¢
1 00 20
1 25 25
1 50 30
1 75 35
2 00 40
2 25 45
2 50 50
2 75 55
3 00 60
3 25 65
3 50 70
3 75 75
Gross Pay Tax
$. ¢ $. ¢
4 00 80
4 25 85
4 50 90
4 75 95
5 00 1 00
5 25 1 05
5 50 1 10
5 75 1 15
6 00 1 20
6 25 1 25
6 50 1 30
6 75 1 35
Tax Tables computed by Paul Edelman, Sharae Smith, David Day, Tyrone Franklin and Coleen Mason
Gross Pay Tax
$. ¢ $. ¢
7 00 1 40
7 25 1 45
7 50 1 50
7 75 1 55
8 00 1 60
8 25 1 65
8 50 1 70
8 75 1 75
9 00 1 80
9 25 1 85
9 50 1 90
9 75 1 95
Gross Pay Tax
$ ¢ $ ¢
10 00 2 00
10 25 2 05
10 50 2 10
10 75 2 15
11 00 2 20
11 25 2 25
11 50 2 30
11 75 2 35
12 00 2 40
12 25 2 45
12 50 2 50
12 75 2 55

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Carol Scott, seventh-grade teacher: "Students who were failing all subject areas and would have been held back saw the need to know and learn from the project. They passed."

Nancy Hagen, first-grade teacher: "It is amazing how much economics can be taught to primary age children."

Finally, Mrs. Carol Scott, an FEC seventh-grade teacher, won first place in the Sohio Teachers in American Enterprise competition this year.

Role of the Principal

A key to the success of the program has been the principal, Dorothy Middleton. She has long believed in the importance of economic education. Her strong support for the program held the faculty together in a project that might have caused rivalries and misunderstandings because so many people with varied personalities and teaching styles are involved. Any new program entails some stress for the faculty, and the FEC staff was already under stress because of the financial crisis in the school system, which necessitated teacher layoffs. In fact, four excellent teachers were laid off that year in our school. In all, the system terminated 800 teachers in the 1980–81 year. The principal displayed tremendous sensitivty and skill in introducing and successfully carrying out a new, extensive program which must have seemed threatening to the faculty at first. In addition to the pressures the faculty had in common with other teachers in the system, ours had the additional burden of being in a "model school," often visited by outsiders and used to "showcase" special programs. Some of the teachers were involved in piloting special programs during the time of the economic education program. The combination of an excellent principal and excellent faculty assured success of the program.

A Lasting Curriculum

The most outstanding benefit of the program from an administrative viewpoint was the development of a "survivable economic curriculum." Heretofore, one or two good teachers in a building might develop a superior program in economic education, but if the developers left that school the program disappeared. Because the whole faculty was involved in the program, from in-service training to The Marketplace, the loss of four teachers (including Mrs. Scott, the first-place award winner) did not destroy the program. And because of its basic structure the program became part of the established curriculum.

Other schools, both within the Cleveland system and without, have asked about replicating the program. Figure 1 is being used in other programs. We feel the "Cleveland Formula" is the way to go in economic education.

PENNY REDMAN of *Syre Elementary School* in *Seattle, Washington*, organized a unit specially designed for a third- through sixth-grade enrichment class. In the course of the project, students established the Superkids Supply Store, financed through stock purchased by students, to sell pens, paper, and other school supplies. The participants learned many aspects related to operating a business, such as ordering stock, keeping a record of inventory, merchandising, advertising, selling techniques, and change-making. As the business went on, the students took on different jobs, for which they received wages in the form of paper credits. Additional credits were earned for book reports on economics issues, business, or current events. The students paid taxes on their earnings. In the course of the project, such additional enterprises as banks, pencil-sharpening services, and the like were organized. Credits earned by the students were spent for goods at special auctions. Stockholders were paid back their original investment plus a dividend on profits upon surrender of their stock certificates. Economic terms and concepts were used throughout the unit. There was considerable opportunity for practical application of economic concepts and math skills. The activity generated widespread enthusiasm and interest. Following repayment of stockholders, remaining profits were used to finance field trips for the students.

SARA B. BAIRD, coordinator of economic education, the *Collegiate School*, an independent college preparatory school with an enrollment of 1,350 students, in *Richmond, Virginia*, designed and organized a program entitled "The Marketplace for Economic Education" to integrate economics into the K-12 curriculum. The program incorporated the broad goals of the E. Angus Powell Endowment for American Enterprise and was funded by the endowment. The goals of the endowment are to help students understand their roles in our economic system and how changes affect them, to develop student understanding of the interrelationships of economic and political freedom, and to establish a model program and encourage and assist other schools to develop similar programs. A major objective was to interest teachers in economic education and to instruct them in basic economic concepts. At the start of the school year, nationally known economic educators addressed the faculty and led seminars for teachers and business leaders to keynote the focus on economics. An on-campus three-credit graduate course was held for faculty members. Many of the participants completed study projects, and these were submitted to state and national awards programs. Economics teachers were recognized at a dinner where they met with business leaders and educators. Administration of the Joint Council's *Test on Economic Literacy* revealed a 50 percent increase in scores. An exhibit at the Chamber of Commerce "Time for Action" Conference, a slide show for business leaders, and a workshop at the Virginia Association of Independent

Schools' conference were used to interest others in economic education. Economic Emphasis Day on campus, films, guest lecturers, and field trips enhanced the total program. A special newsletter reported on progress in economic education to the community. Many materials were added to the school's resource library as a result of the great interest that was generated. The Joint Council's *Basic Economics Test*, the *Junior High School Test on Economics*, and the *Test of Economic Literacy* was administered at appropriate levels to 300 students. As a result of all the activities related to the project, economics was taught in a variety of disciplines throughout the school, including social studies, history, biology, religion, mathematics, and literature.

LOIS ARMSTEAD EXENDINE, a professor in the School of Education, *Oklahoma Christian College, Oklahoma City, Oklahoma*, developed a unit on the economics of the environment. The unit and a file of available teaching ideas and materials were designed to aid teachers in helping students to achieve a higher degree of economic literacy and develop the ability to make rational economic decisions. Economic education was coordinated with several other subjects taught at the college. The ideas and concepts can be adapted to any grade level. The main goal was to enhance student understanding of the economic importance of our environment. Students suggested personal ways of saving time and discussed the role of pollution control and the costs of alternative solutions to our nation's energy crisis. Students studied about how economists and environmentalists view "trade-offs"—the giving up of one thing for another. Sources of pollution problems as well as suggestions for control measures and the extent of their effectiveness were considered by students in a visit to a local sewage plant. A list of land-use abuses was matched with corrective ways to use land wisely and to redress ecological disturbances. The students tried to determine the present cost of polluted air and analyzed how each student could budget time and money effectively if air were actually pollution free. Ideas on what a family might do to lessen the problem of polluted air were also discussed. A speaker discussed water pollution and the cost of correcting the problem. Research data showing measures the Environmental Protection Agency has taken to insure air quality were studied. Objectives were satisfied after the study on various types of pollution was completed and students saw the economic benefits of preserving natural resources. Library books, resource publications, pamphlets, films. filmstrips, science experiments, songs, games, and guest speakers enriched the unit.

JUDITH E. BUSH, a mathematics teacher at *Eastern High School, Louisville, Kentucky*, developed and taught a unit on consumer credit to her consumer mathematics class. Since approximately one-fourth of credit users under twenty-five are overextended (according to the United States Office of Consumer Affairs), it would seem an essential responsibility of the high school to show students how to use credit wisely. Through the use of games, interviews with family members, speakers, newspaper advertisements, movies, and publications from Federal Reserve banks and the Federal Deposit Insurance Corporation, the student learned to define credit and the essential terminology of credit and to understand the advantages and disadvantages of credit use. Students learned their responsibilities as credit users and the importance of protecting one's credit record. They learned how decisions are made regarding the lending of money.

Local agencies that provide assistance to consumers both in managing credit and in obtaining fair treatment in the issuing of credit were listed. The value of shopping for credit was emphasized. Students learned the answers to such questions as (1) Where is credit available? (2) In what ways can the cost be computed and stated? (3) Why does the cost vary? (4) What should the individual determine before using credit? and (5) What is the maximum for a given income which should be tied up in credit payments? Much attention was given to analyzing advertisements for credit. A gratifying result of the activities was that students at every ability level realized the importance of learning about credit.

RUTH FAWCETT and CAROLE MALDONADO of *James A. Garfield School, Willoughby Hills, Ohio,* developed a school-wide currency called GEMs (an acronym for Garfield Exchange Medium). Participating teachers designed classroom programs that included ways to earn GEMs, ways to spend GEMs, and ways to lose GEMs (fines). The First School Bank offered savings accounts that paid interest; it also employed tellers and accountants.

The purpose of the program was to provide experiences that would exemplify economic concepts such as supply and demand, scarcity, inflation, circular flow, the roles of producer/consumer/investor, earned income, private enterprise, marketing, division of labor, goods and services, wealth and poverty. In sum, responsibility and economic decision making were being practiced on a daily basis.

An outgrowth of the previous year's economic project, the GEMs program was continued in the 1980–81 school year. The student-operated market was the focus of the activities surrounding the manufacturing and selling of goods for the Christmas boutique, of which the most popular item was gnomes.

This program was started to provide a dynamic, continuing, multilevel experience exemplifying basic economic concepts by stimulating free enterprise and maintaining circular flow. It was planned that all students in grades one through six would participate on various levels and would gain economic understanding to the best of their ability.

GAYLE J. AKKERMAN of the *Lakeville Elementary School, Lakeville, Ohio,* taught economics to her fifth grade using a unit entitled "Economics in the Classroom." It could be employed as supplementary material, for reference, or as an independent teaching unit. Its material was geared to the upper elementary child, although it could be modified to fit other ages, depending on the ability and skill of the students involved.

The unit provided practical, positive, learning experiences on scarcity, demand, supply, opportunity cost, price, money, international economics, fiscal policy, consumer spending and saving, and inflation. Each lesson provided explanations for the specific concepts it covered. The class also participated in motivating and introductory activities, ranging from large- and small-group discussion and problem-solving games to a simple filmstrip or movie. The description of the actual instructional activity included specific step-by-step procedures as well as suggestions for materials and room management. Each lesson then concluded with follow-up activities, evaluation techniques, and suggested reference materials.

MARGARET M. MURPHY, coordinator of economic education at *Johns Hopkins University, Baltimore, Maryland,* began a program for high school students in 1980. Entitled "The Internship Program for Gifted and Talented Secondary Students," the program took six weeks, with the first and last weeks conducted on the Homewood Campus of Johns Hopkins University. The on-campus sessions provided an intensive introduction to economic concepts and skills. The initial week also included an introduction to computers, a library-use session, and an orientation meeting for parents, students, and mentors. The central four-week period involved assigning each student to a mentor in a business, bank, or government agency. During this period, students developed and completed the terms of a contract with their mentors. Each student was visited each week by the field supervisor. Nineteen students were accepted and at the orientation meeting were tested on their knowledge of economics. Between the orientation meeting and the start of the program, interviews were arranged between the participants and potential mentors. During the first week, students received an overview of the field of economics which included the topics: the individual in the economy, the role of businesses in the economy, banking in the economy (with a field trip to the Baltimore branch of the Federal Reserve Bank of Richmond, Virginia), and the government's role in the economy. In addition to fulfilling the contract's terms, students were required to maintain a daily log and to develop a two- to five-page analysis of their assignment places as economic organizations. Following the internship, the students returned to the Hopkins campus. The last week was a synthesis effort. First, the students compared the economic organizations in which they had been placed, and presented summary reports of their major projects. The students used the reports as a basis for studying the economics of contemporary issues, for which the participants received additional resource materials.

BEVERLY J. TOWNLEY of the *Fairfield County (South Carolina) School District* served as project director for the development of "Creative Economics Notions for Teachers and Students"—(¢ENT$). The project was designed as a Title IV–C elementary economics effort to provide K-8 teachers with strategies and materials to teach economic concepts in a nine-week social studies unit. The program took three years to design, develop, use, and evaluate. The program focused on the concepts the Joint Council on Economic Education specifies as essential to understanding the American economy. They were introduced at specific grade levels and reinforced at increased levels of sophistication throughout the grades. The forty-five teachers who participated in the project used a scope and sequence chart, grade level teachers' manuals, puppet, filmstrips, posters, transparencies, and economic games. All materials were designed by a group of thirty teachers with stringent consultation and review provided by economists, curriculum consultants, and measurement specialists. In addition, there were project-developed summary tests, examiners' manuals, and an in-service users' guide. Learning activities included a variety of real-life experiences and simulations. The evaluation component used a control-type design. With one exception, students who participated in the ¢ENT$ project significantly outperformed control-group students as measured by both the project-developed and commercial tests. The evaluation data clearly indicated that the students who had participated in the project had learned economics. Further information about the project is available from the project director.